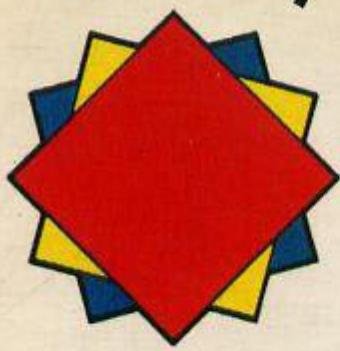


折紙世界

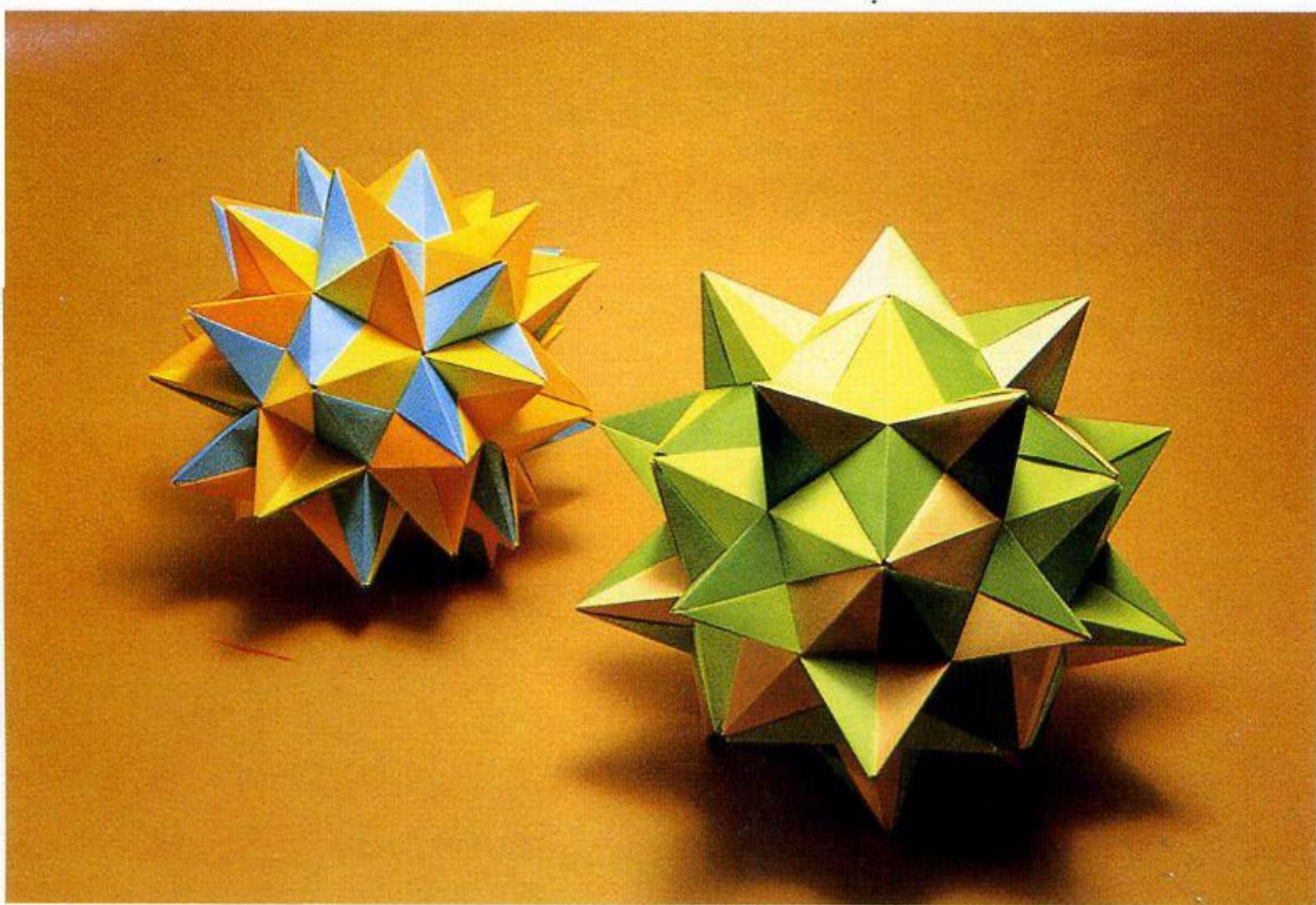


日本全國折紙協會指定教材

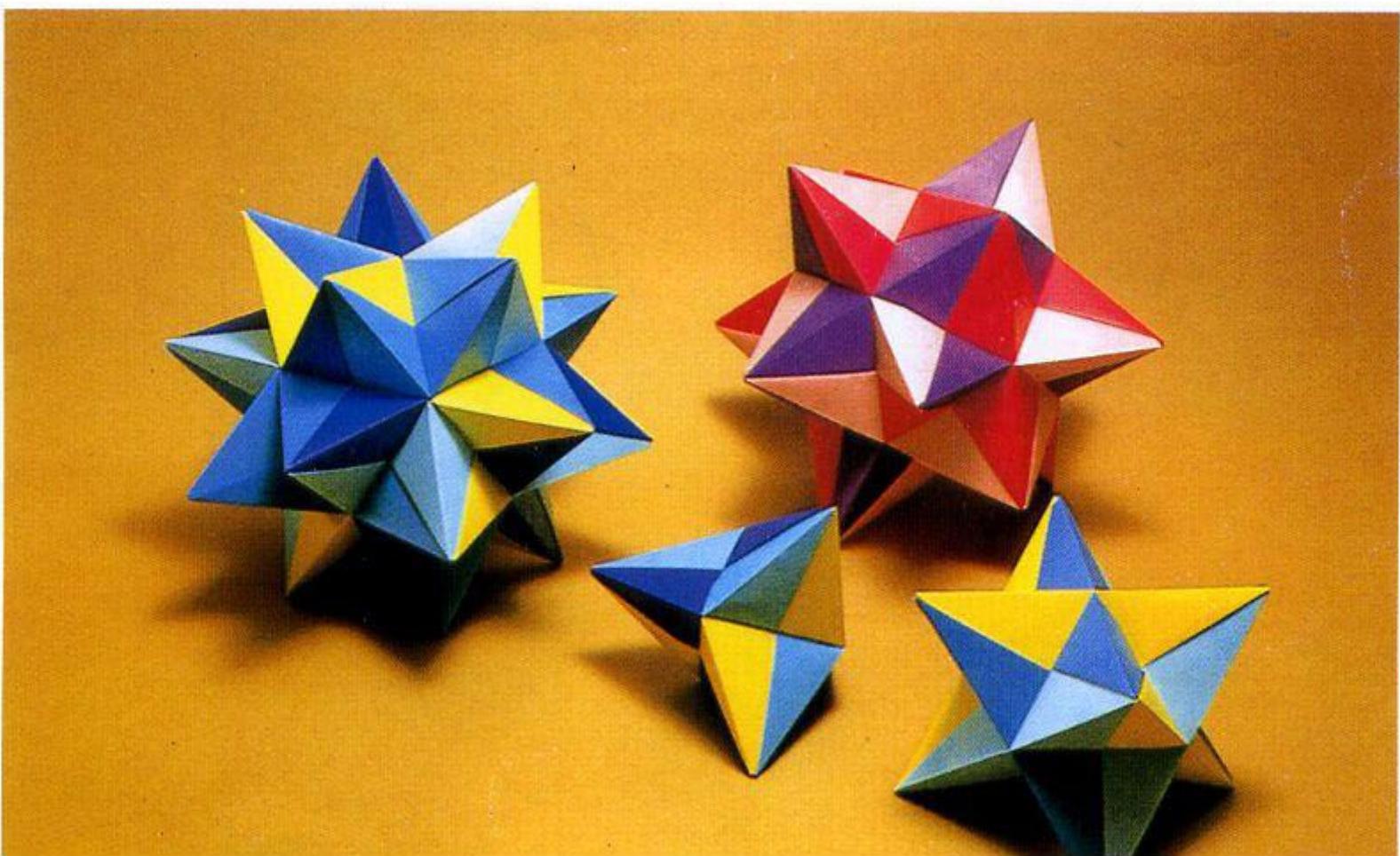
# 立體造型折紙

組合式折紙



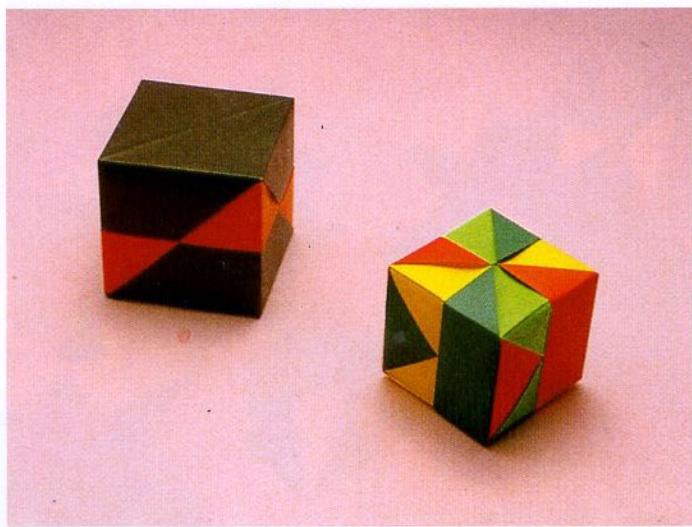


正三角形的組合（60張組合）

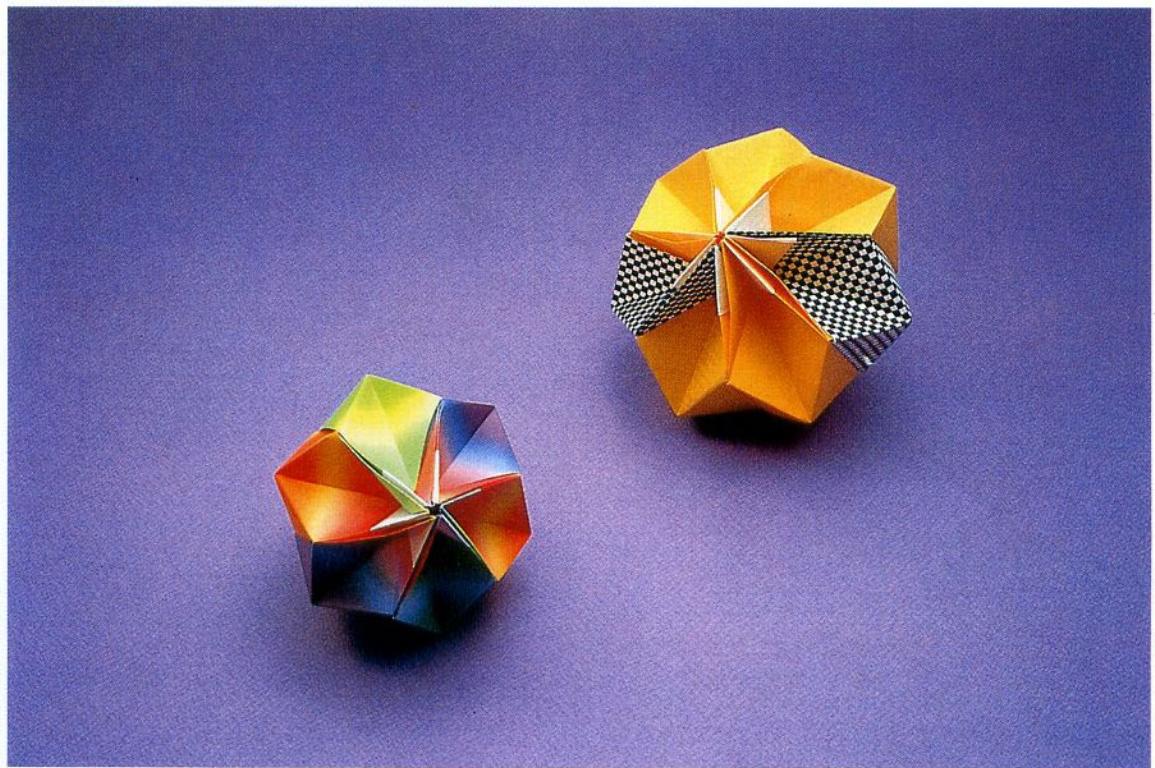




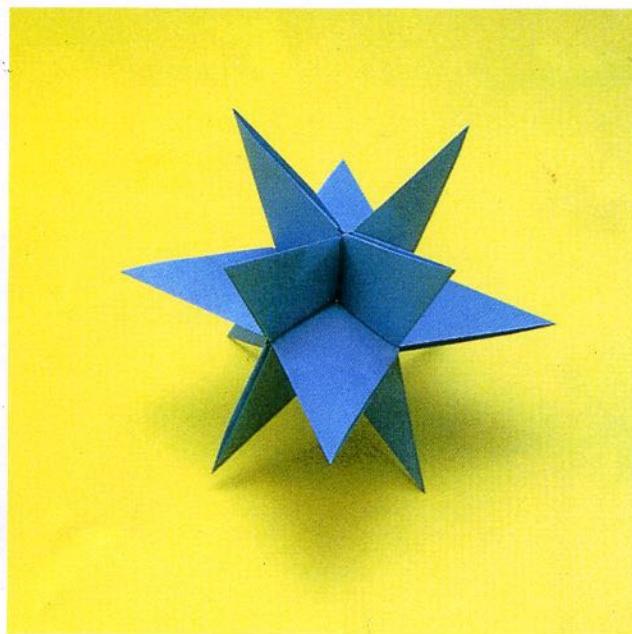
簡易菌部式組合（左起 48 張組合、90 張組合、12 張組合，32 張組合，6 張組合）



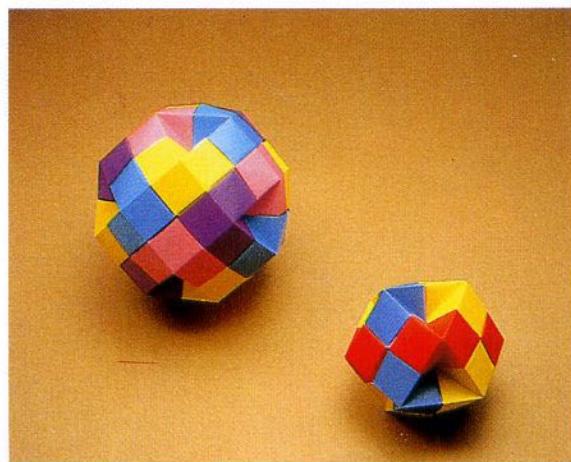
禮物盒



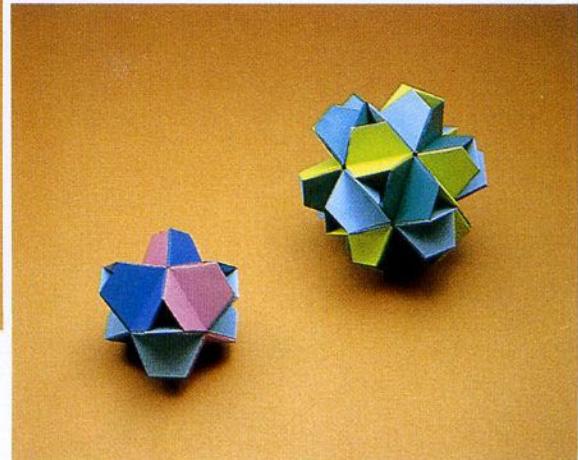
南瓜



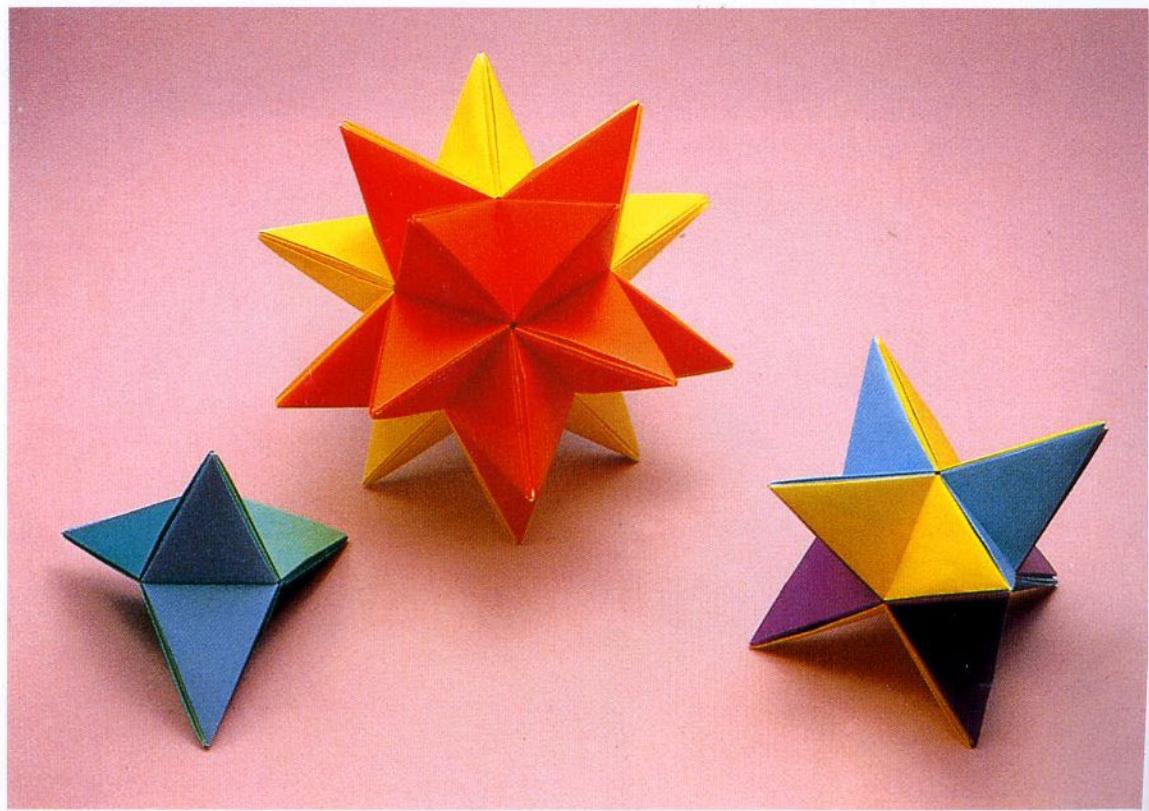
星光



坐墊式組合



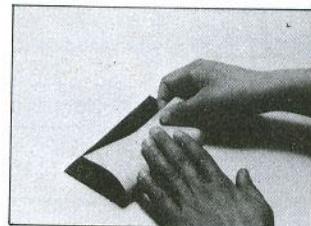
龜殼（左起 12 張組合、30 張組合）



菱形組合（左起 6 張、30 張、12 張組合）

# 立體造型折紙

## 組合式折紙



### 寫在前面

所謂組合式折紙，是指折出許多個同樣的紙型，不用漿糊，而將之組合成各種不同形狀的造型折紙。

在組合各個分散單位的過程中，除了可享受到謎般的樂趣，而且當您完成一個造型時，還能體驗到折紙的喜悅與神奇。

在本書中，主要是以介紹組合式折紙的基本型立方體為開端，而衍生出像香包等各種不同的立體造型。您也來做做看吧！

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※按照號碼順序折，按照箭頭依序組合。

## 各種記號的說明



折了以後再打開



翻過來



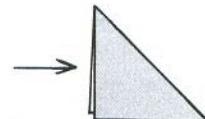
放大圖



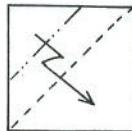
壓扁



拉出

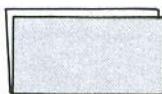
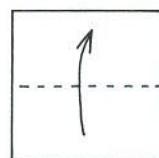


照記號處折合

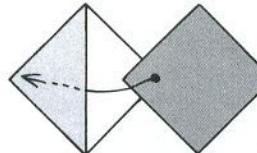
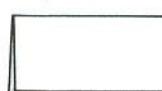


折成二段

向內折成谷

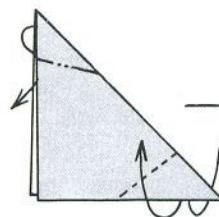


向外折成山

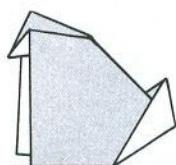


插進洞裡

折進中間



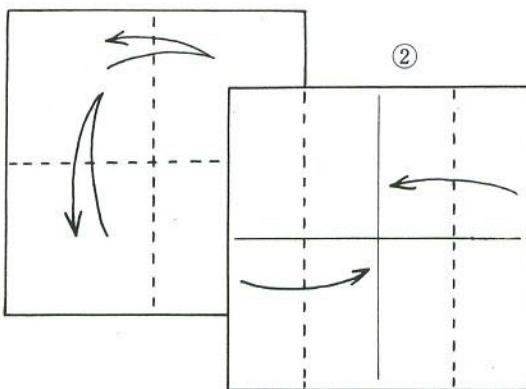
折向外面



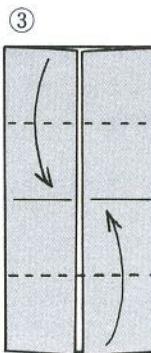
# 風車立方體

這是承襲傳統折紙法的一種立方體。  
「風車」也可做成「連體船」或「帆  
船」。

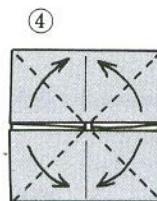
①



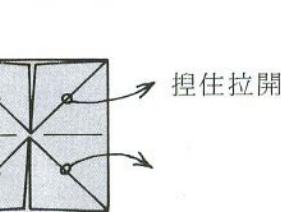
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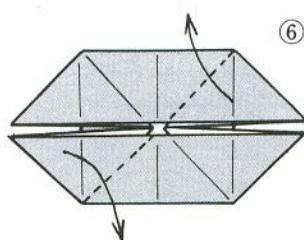
③



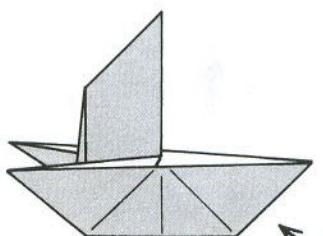
④



⑤

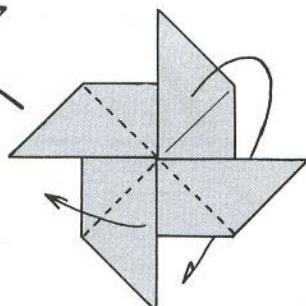


⑥



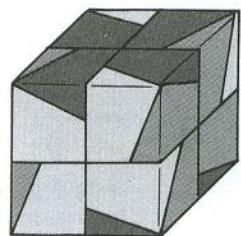
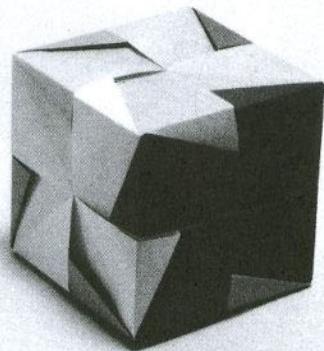
★ 帆 船

★ 風 車



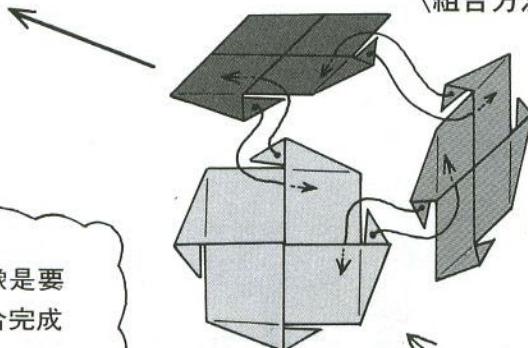
⑦

姑且不管這個立方體做得好不好，能利用傳統作品組合成新作品，是這個作品的趣味所在。

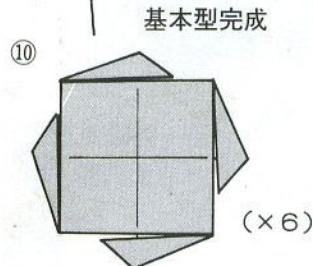
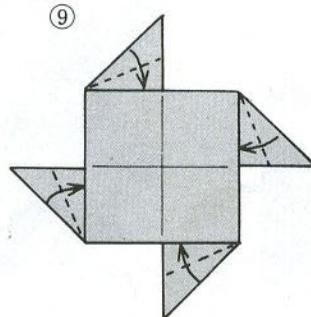
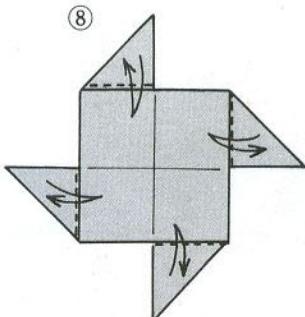


〈組合方法〉

其他三張也  
照這樣組合



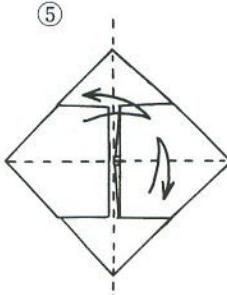
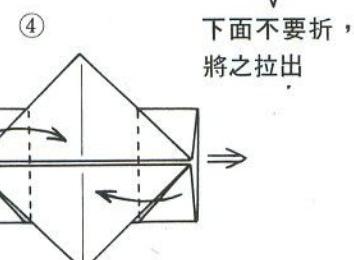
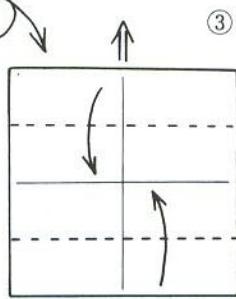
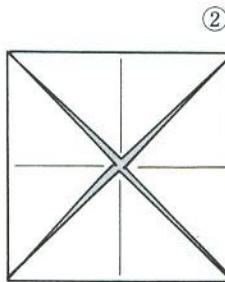
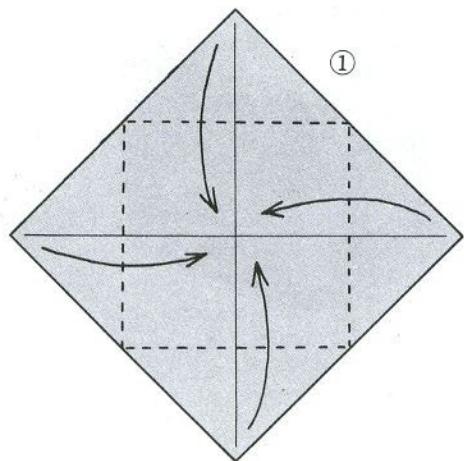
剛開始組合時，像是要解體似的，但組合完成後卻異常的牢固。



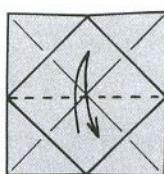
基本型完成

# 坐墊式組合

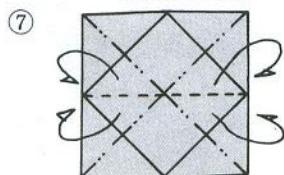
這是以折法相當簡單的坐墊折法為基  
本型，但是組合成的立體則非常漂亮。



用力折出折痕



⑥



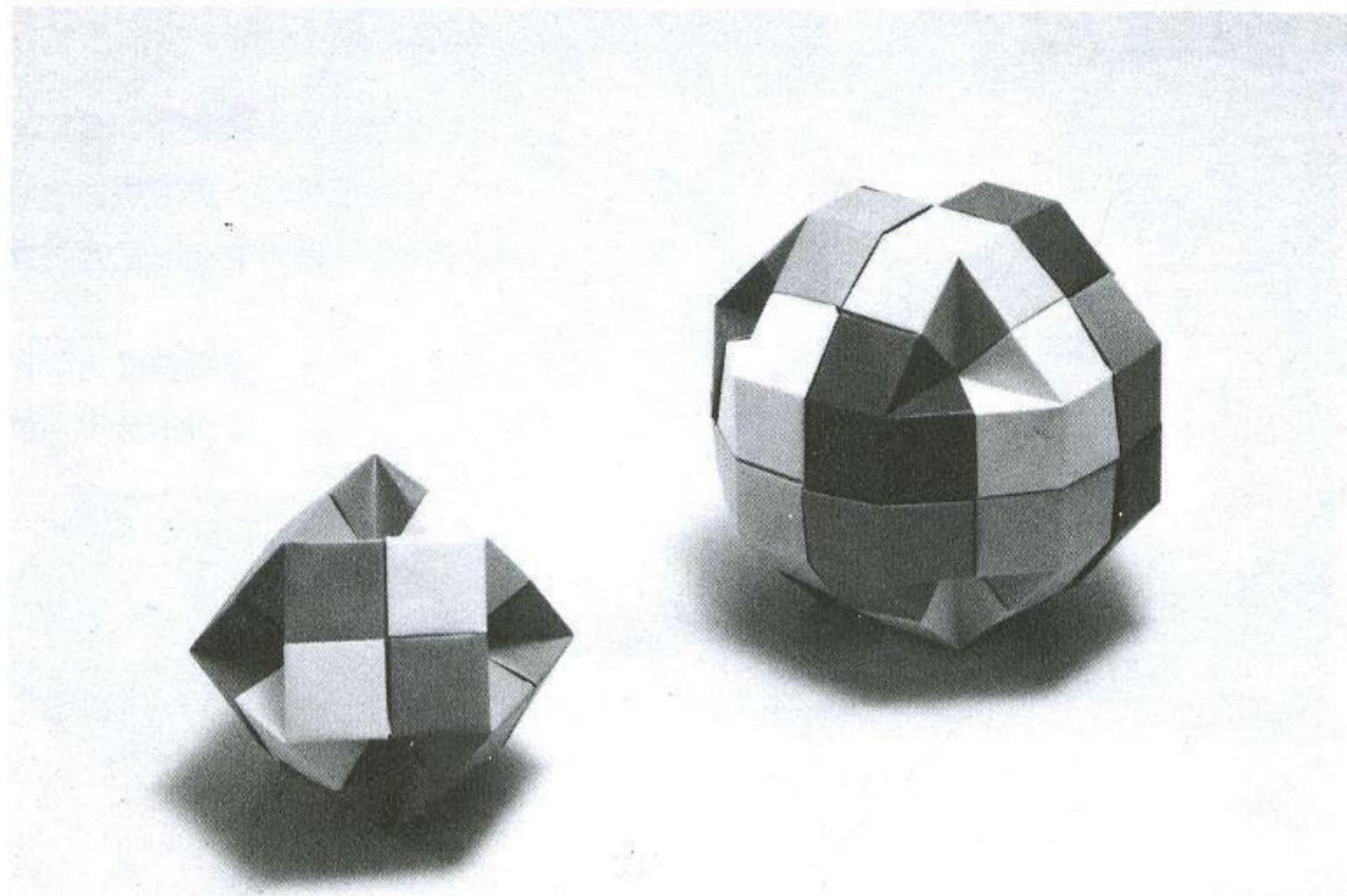
照折痕折好

⑦



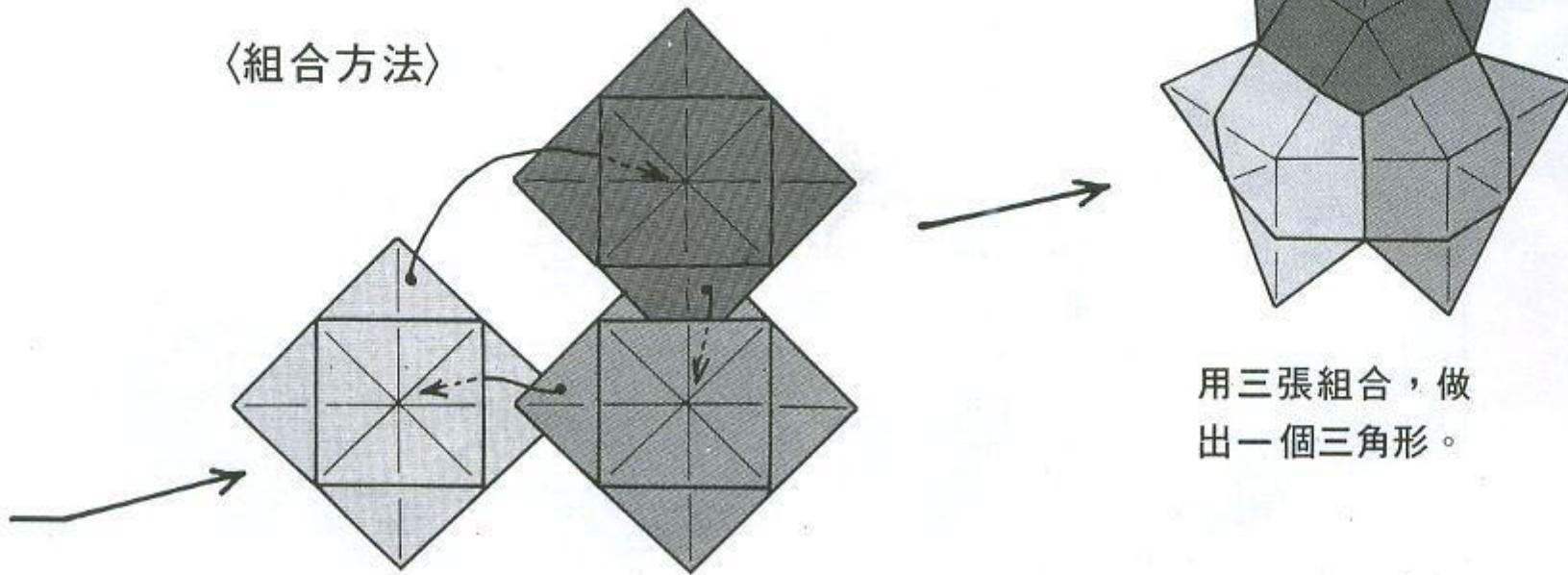
用力折出折痕後打開

基本型完成



左：12張組合 右：24張組合

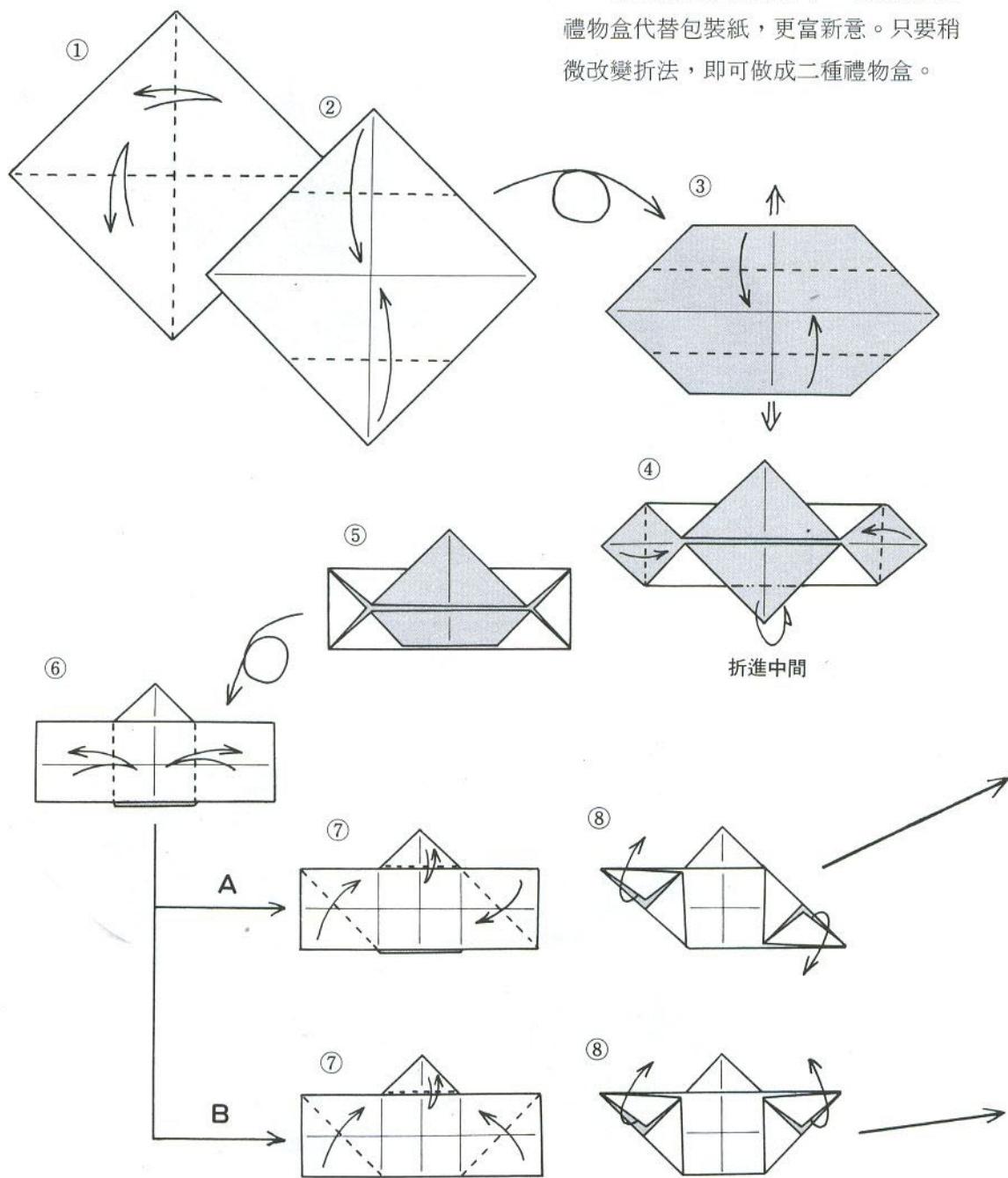
參考三張組合的方  
式，想想該怎麼組  
合。



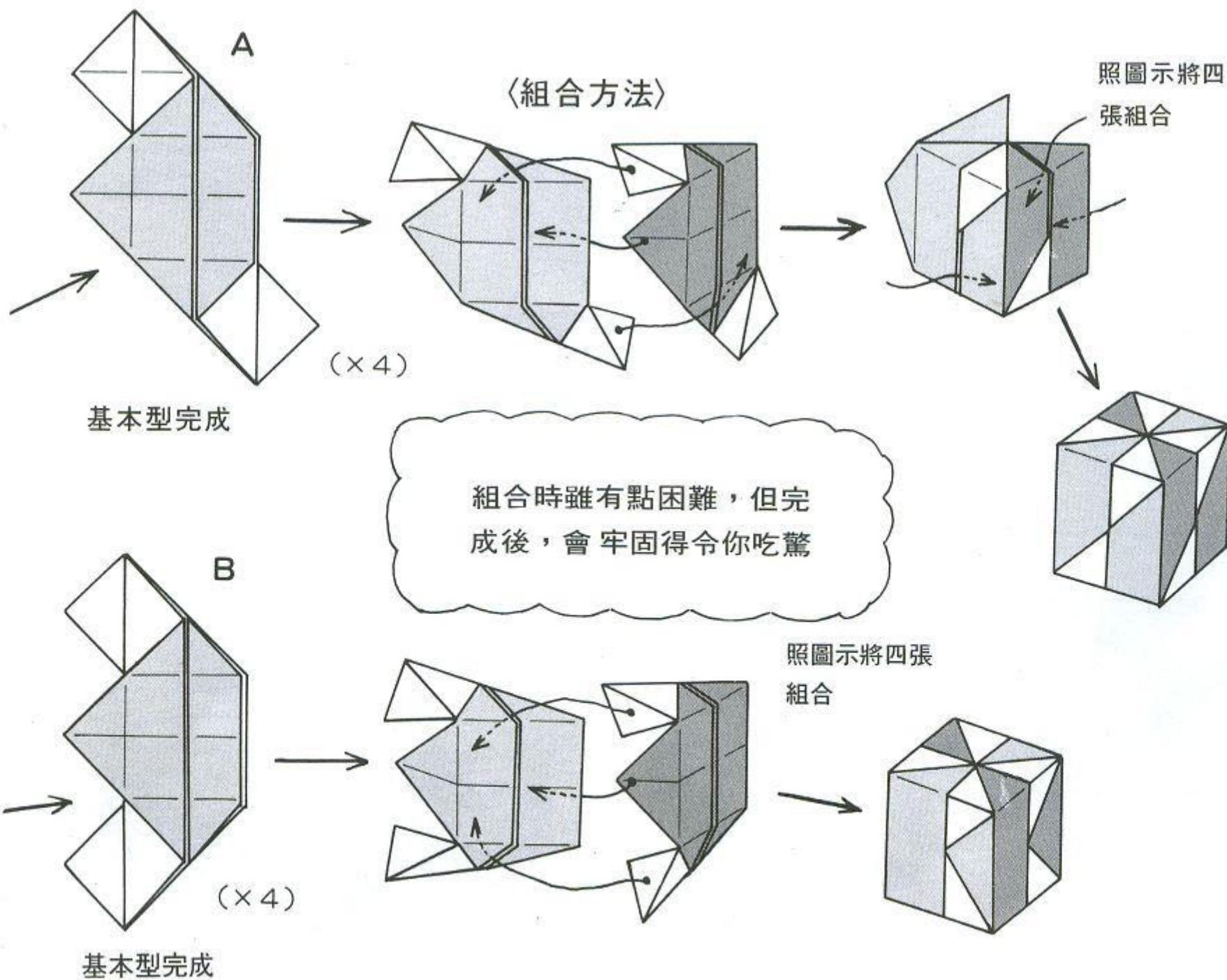
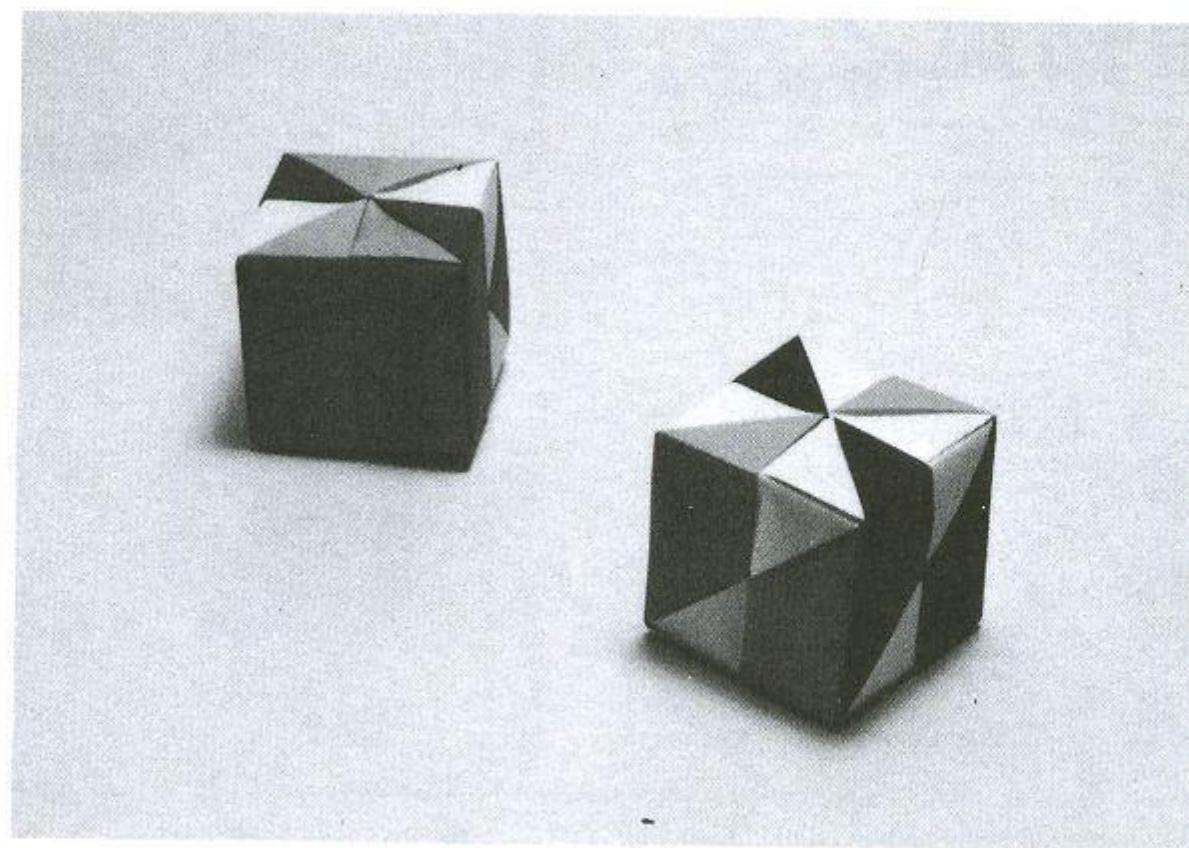
用三張組合，做  
出一個三角形。

# 禮物盒之一

當您想送份小禮物時，可以用這種禮物盒代替包裝紙，更富新意。只要稍微改變折法，即可做成二種禮物盒。



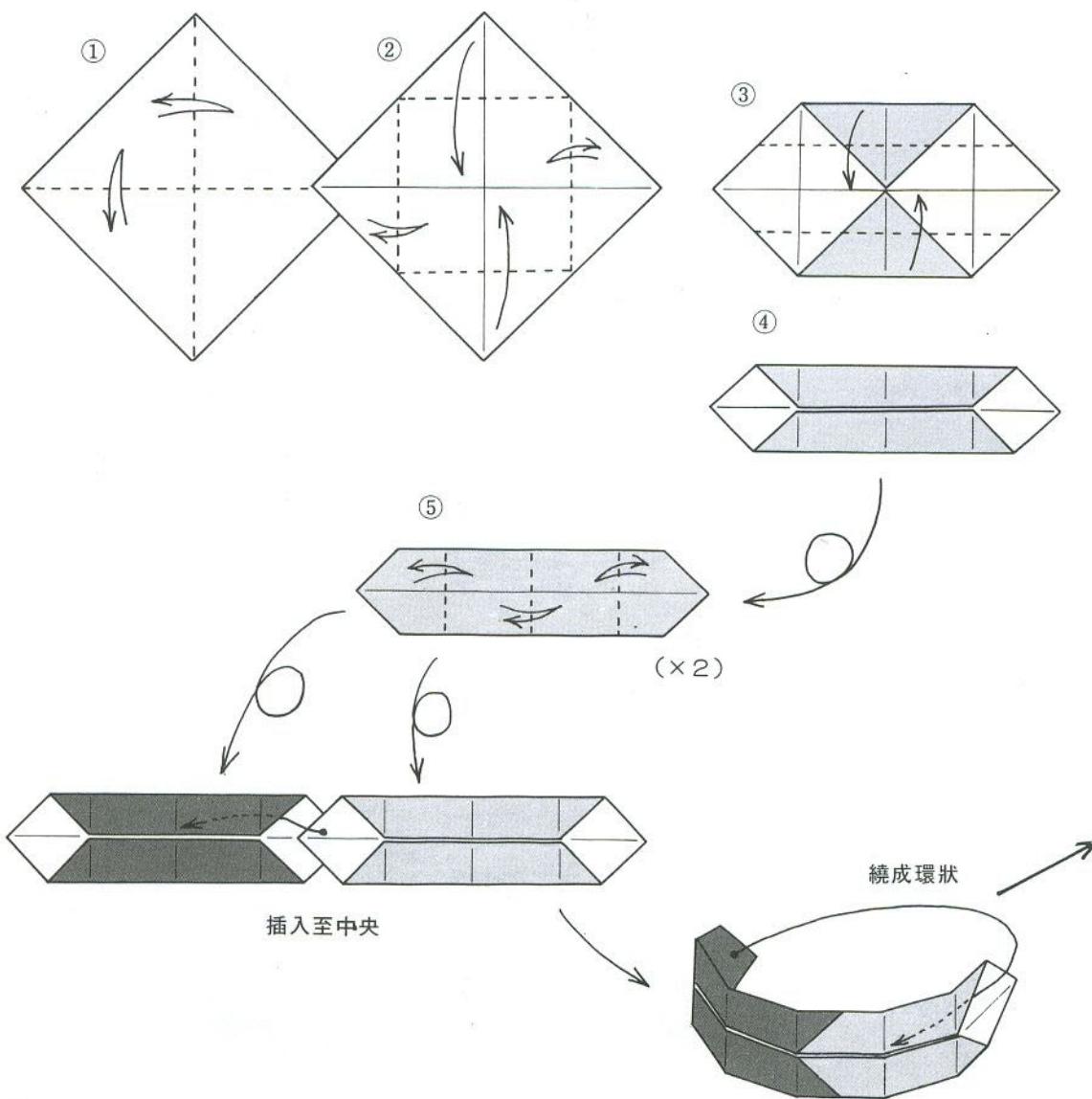
右：A型禮物盒  
左：B型禮物盒



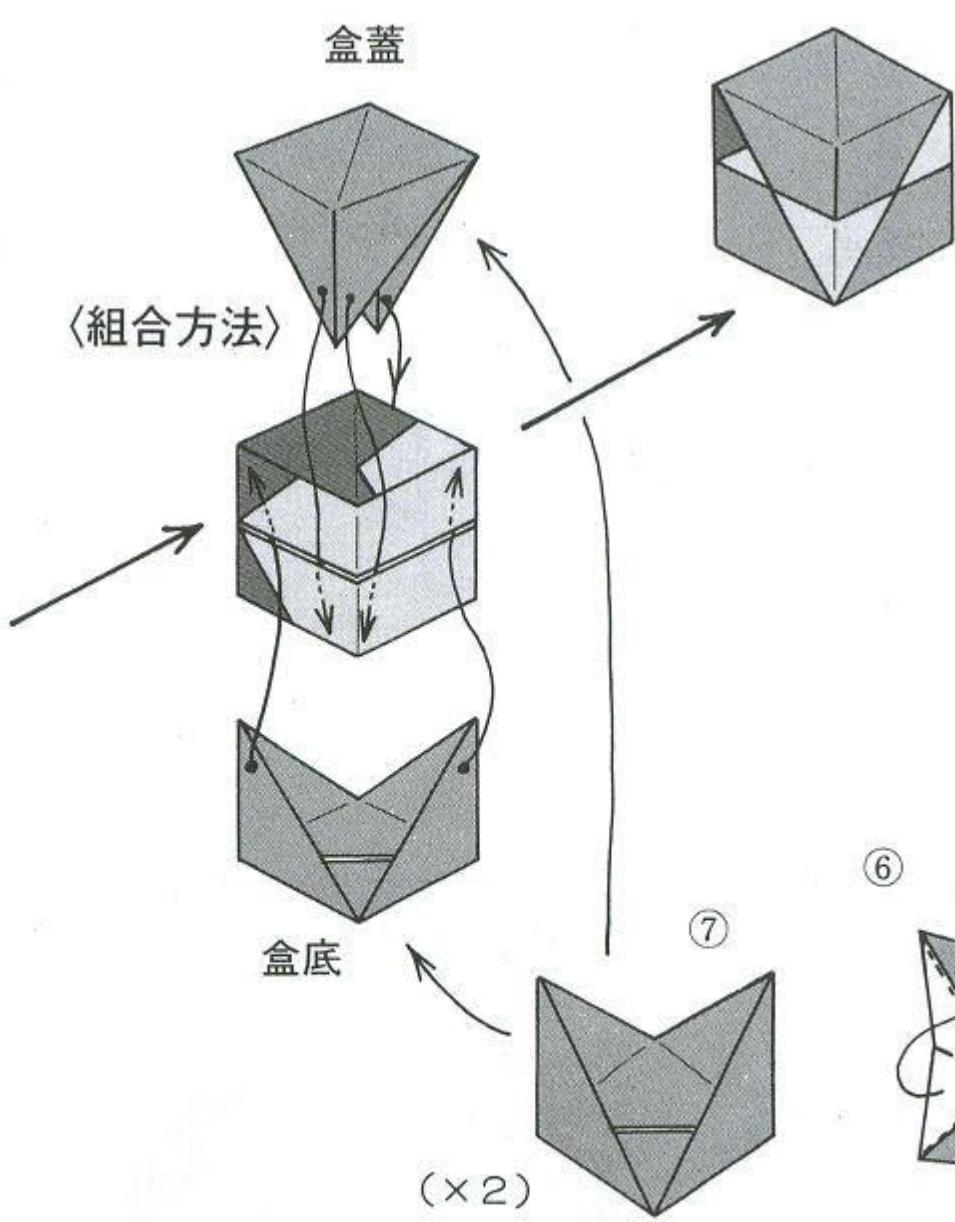
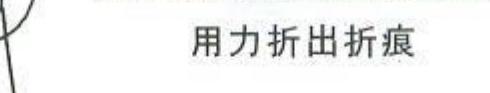
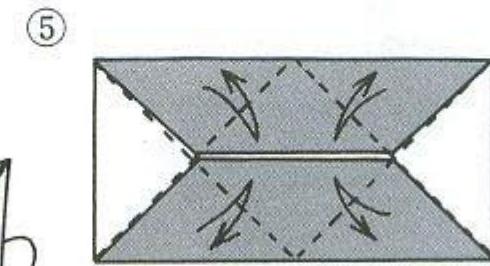
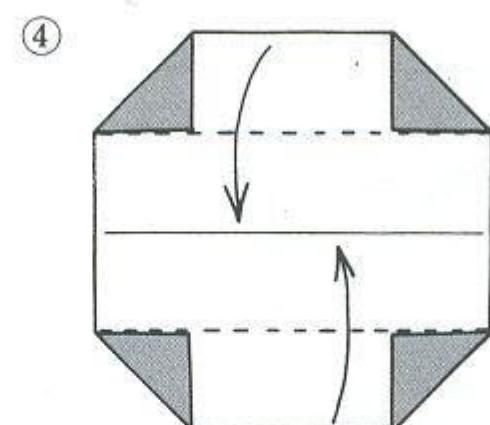
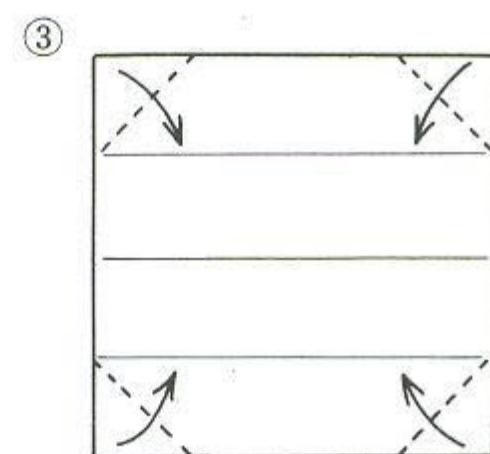
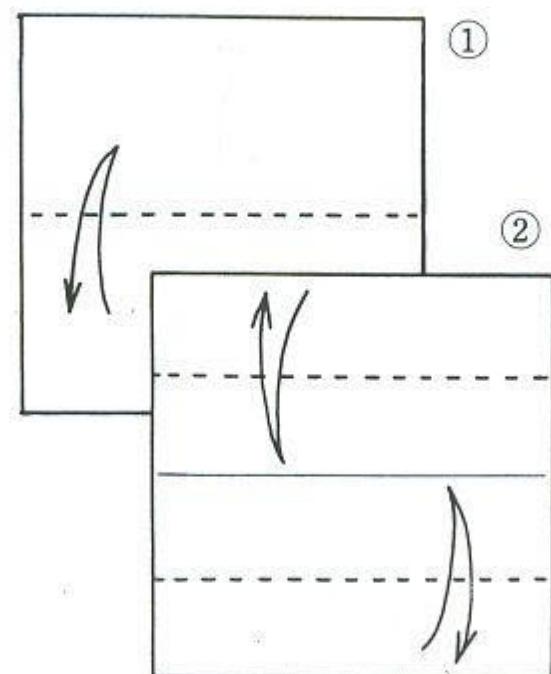
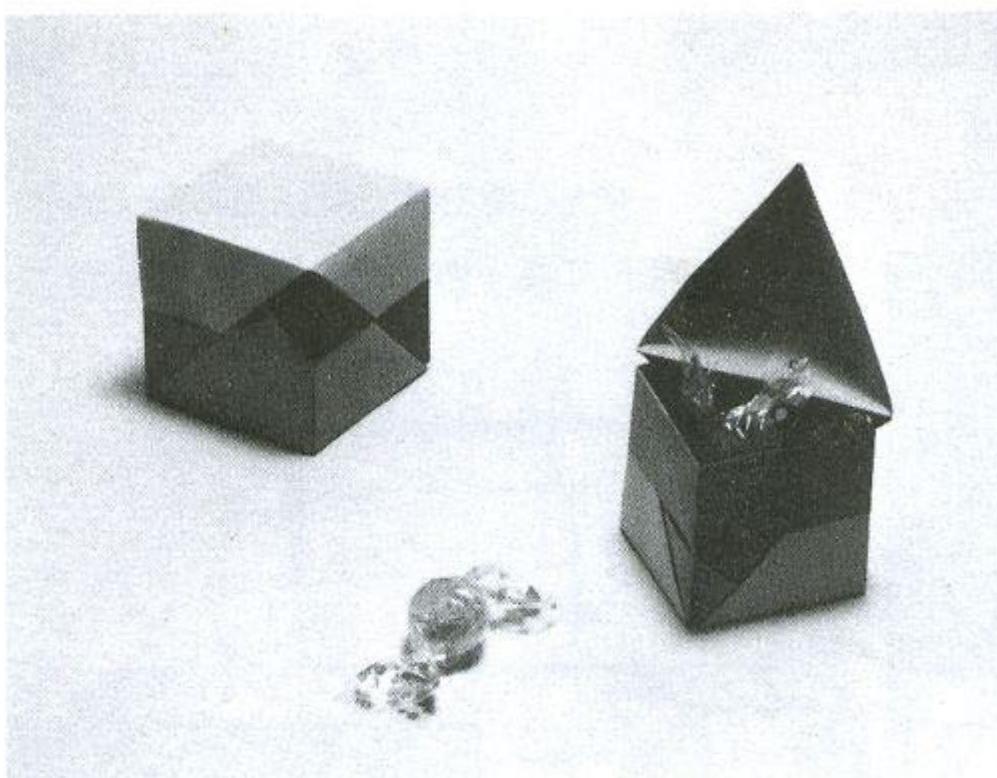
# 禮物盒之二

這個禮物盒的特色，是比前者更易使用。以環狀紙型做四邊，鳥嘴般的紙型做盒蓋及盒底，以便將這二種紙型組合起來。

## ★ 環狀紙型

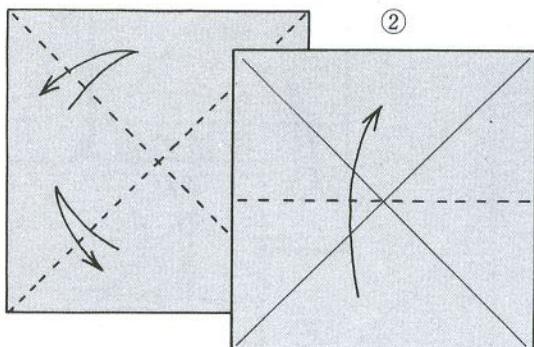


## ★ 鳥嘴紙型



# 禮物盒之三

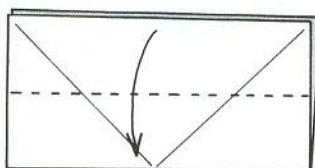
①



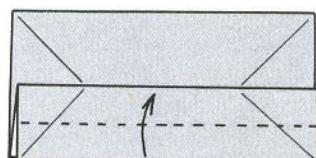
②

前面二種禮物盒是正立方體，這個  
則是長方體。您想裝入什麼當禮物呢？

③

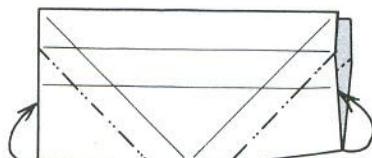


④

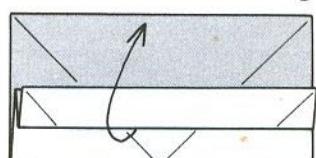


⑦

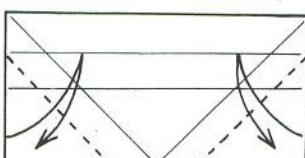
折進中間



⑤

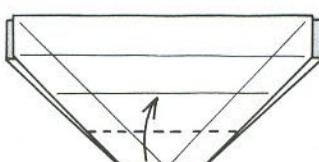


⑧

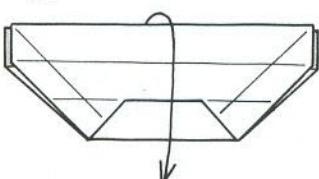


⑥

還原至步驟③

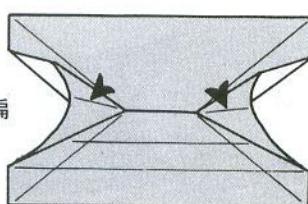


⑨



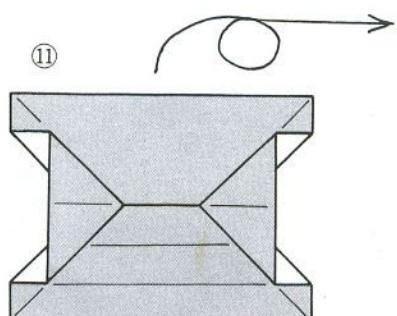
打開

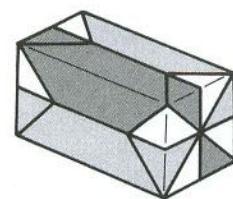
⑩



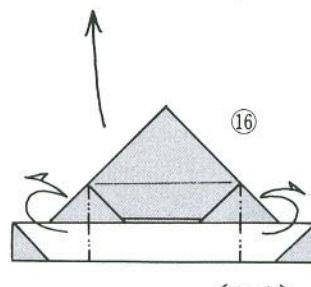
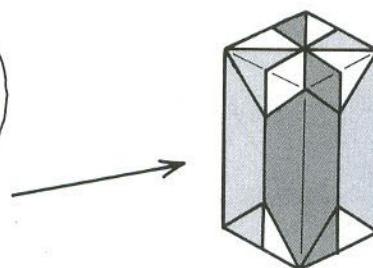
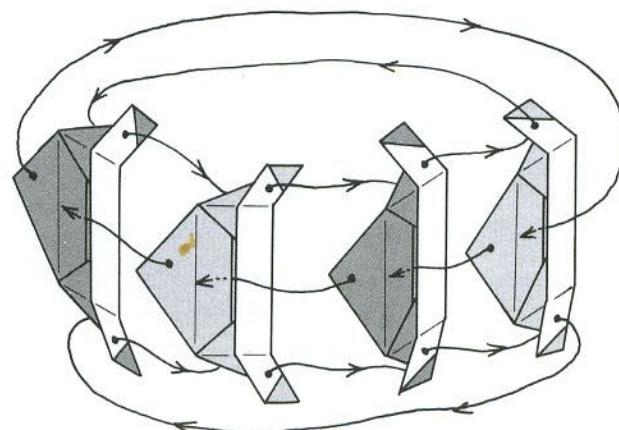
壓扁

⑪



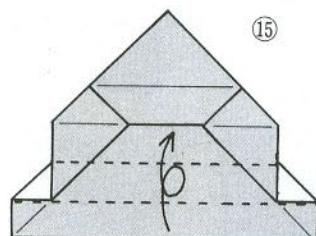


〈組合方法〉



⑯

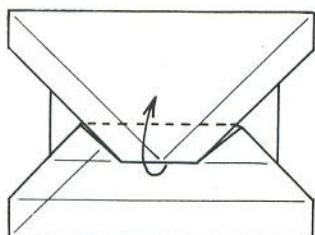
(× 4)



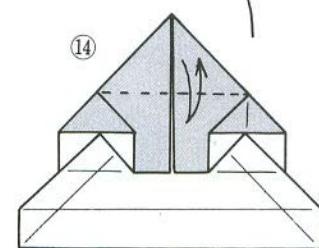
⑮



⑫



⑬



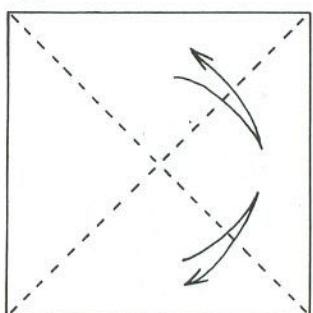
⑭

# 吹陀螺之一

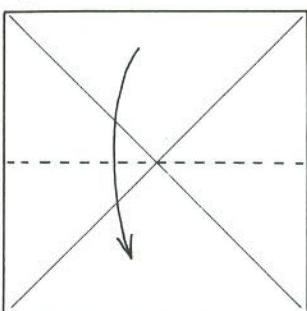
( 羅勃 · 尼爾作 )

按住陀螺兩端吹氣，它就會轉個不停。也可以用線將它吊起來當裝飾品。如照片所示，當您從不同的角度去看它，就會有迥然不同的感覺。

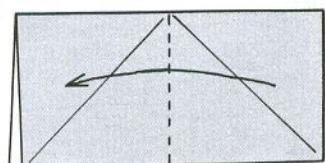
①



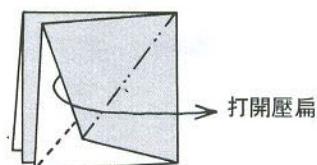
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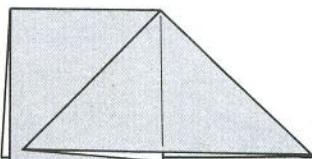
③



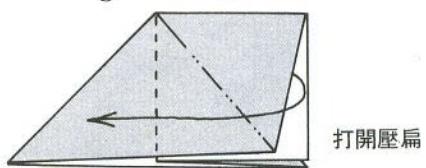
④



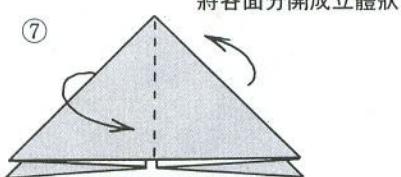
⑤



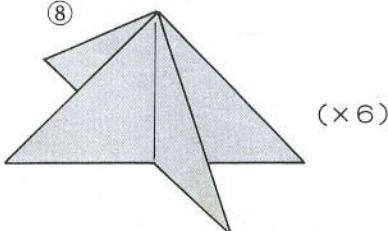
⑥

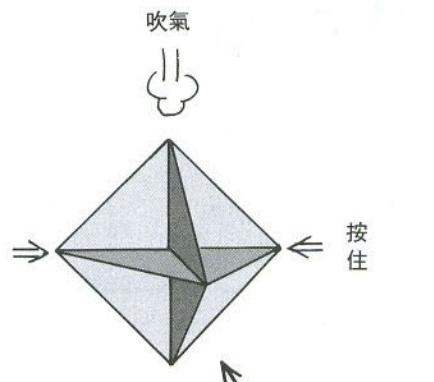
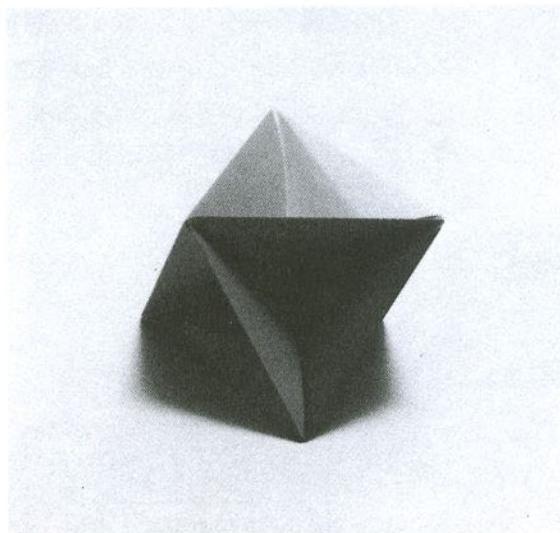


⑦

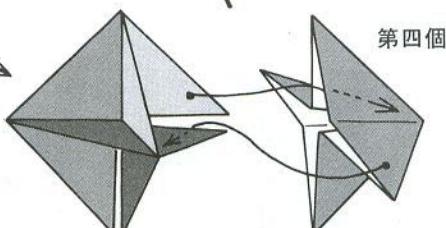
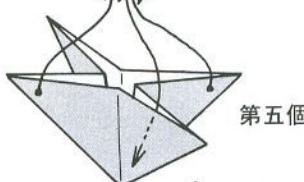
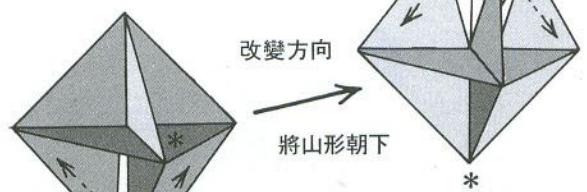
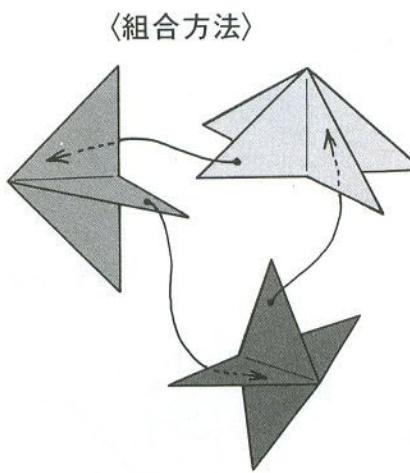


⑧



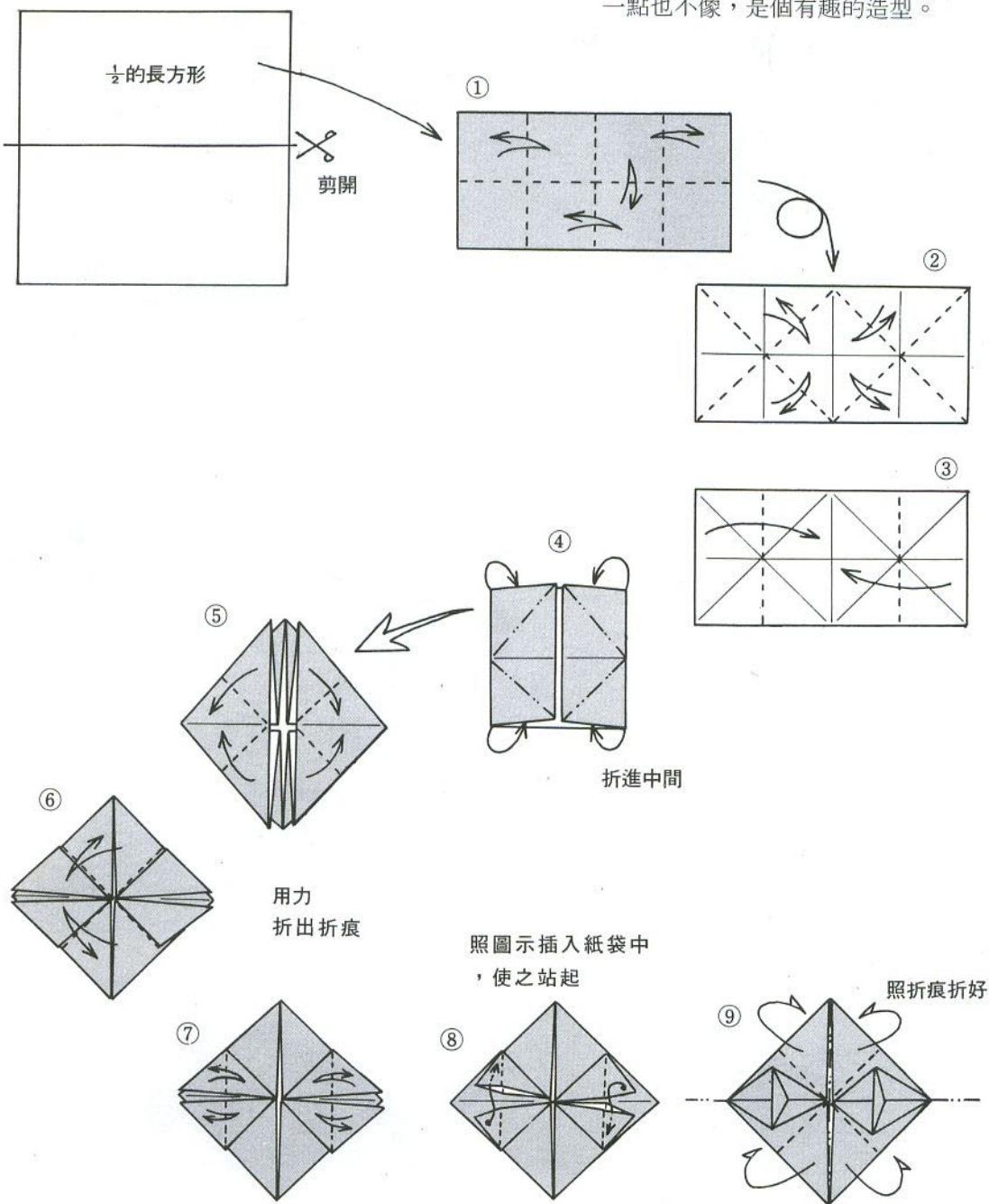


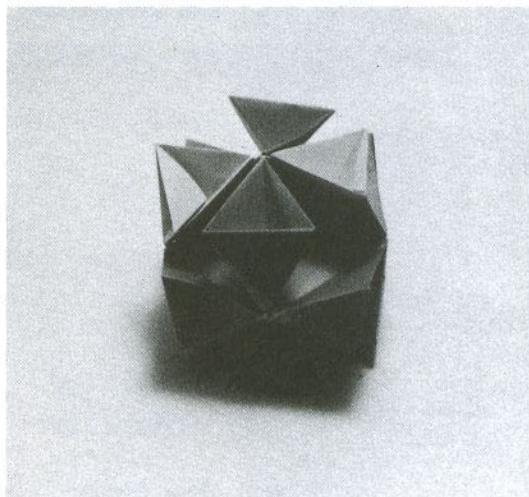
在學會竅門以前，您可能會覺得它  
很難組合。這個組合方法後面還會用到  
，請牢記。



# 吹陀螺之二

這是將前面的「吹陀螺」加以裝飾改良成的。組合方法不變，但和前者卻一點也不像，是個有趣的造型。



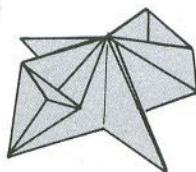


組合方法和「吹陀螺」一樣，如果不明白，可以參考 15 頁，以免被一些裝飾花樣搞迷糊了。

不過，這個可不能像「吹陀螺」一樣拿來吹著玩。



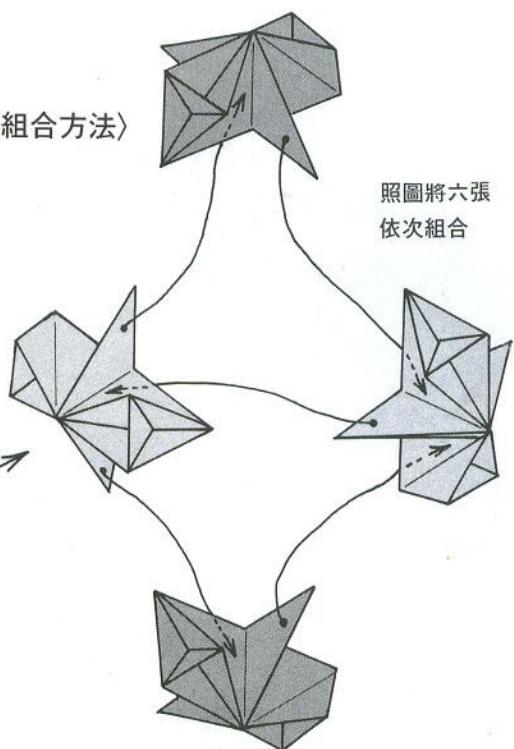
⑩



(×○)

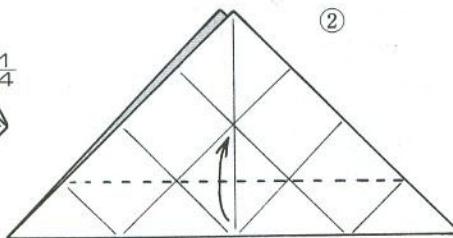
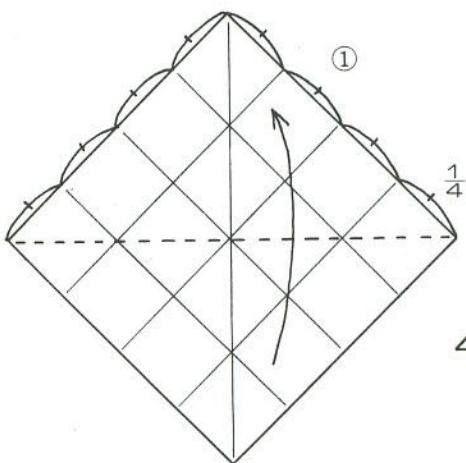
〈組合方法〉

照圖將六張  
依次組合

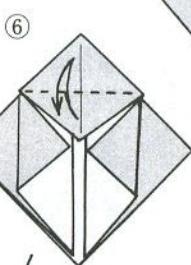
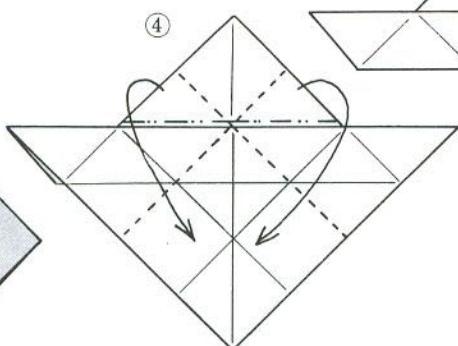
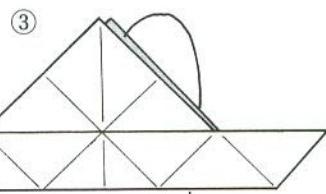


# 南瓜

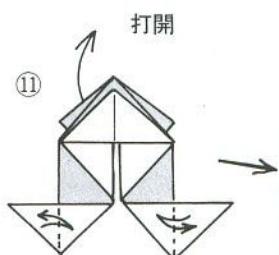
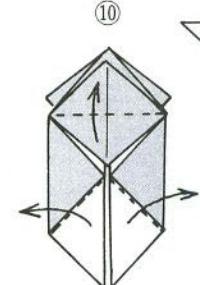
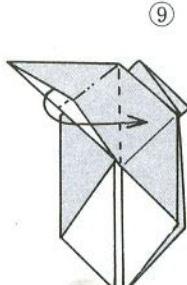
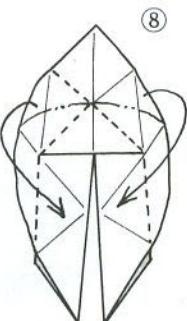
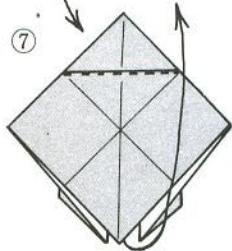
這是個像南瓜，並帶有幽默趣味的立體造型。如果張數增加，南瓜會變得更大。



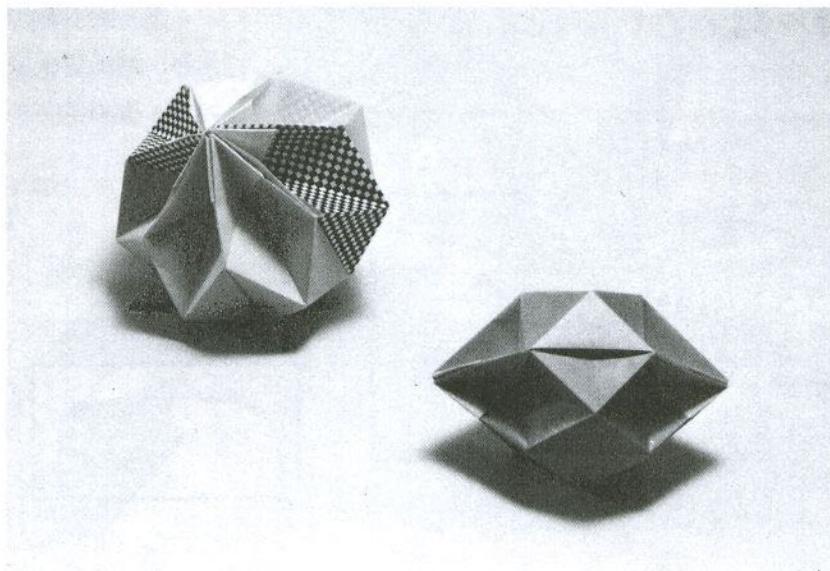
先依圖所示，折出折痕  
，再對折。



捲起

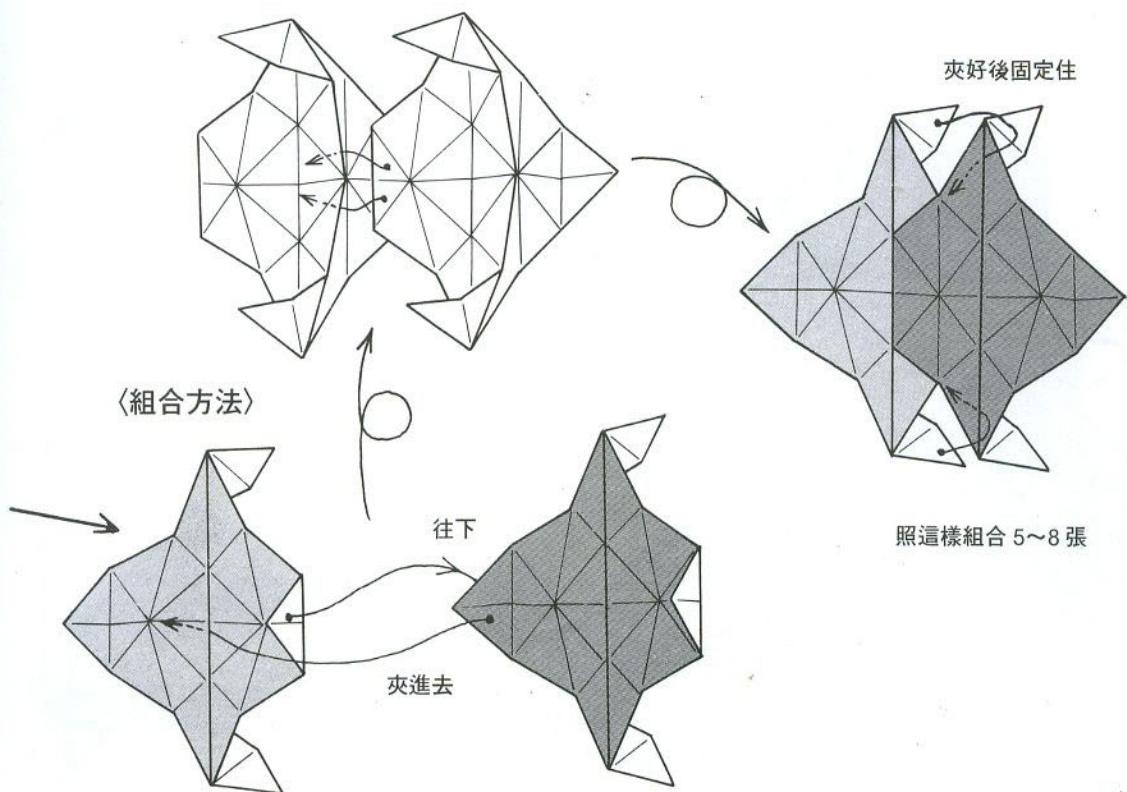


折出痕後，如右圖  
般打開



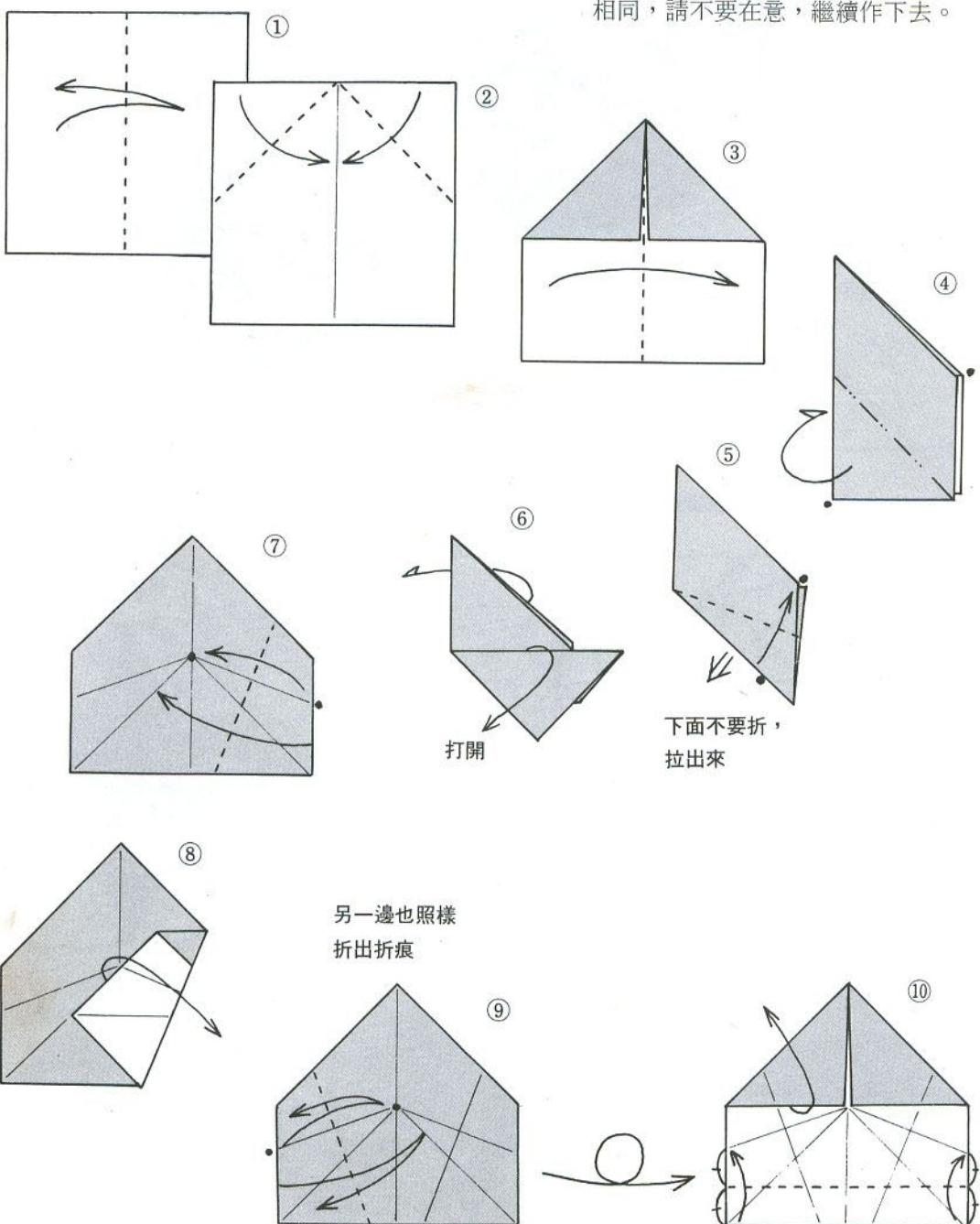
左：7 張組合  
右：5 張組合

背面也要夾進去

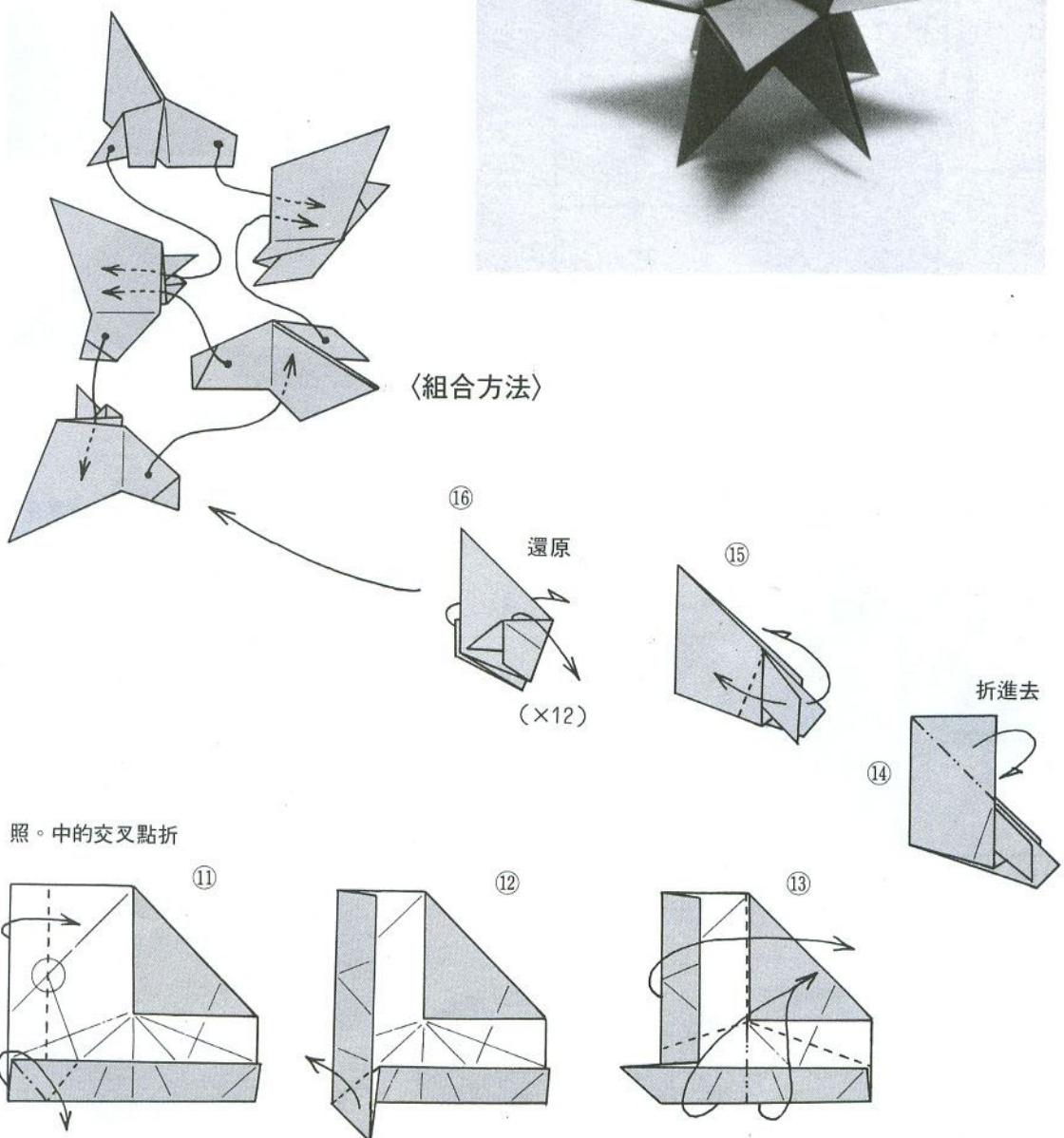


# 星光

將快快不樂的時候比擬成星光。雖然每一個紙型要插入的折翼其形狀皆不相同，請不要在意，繼續作下去。

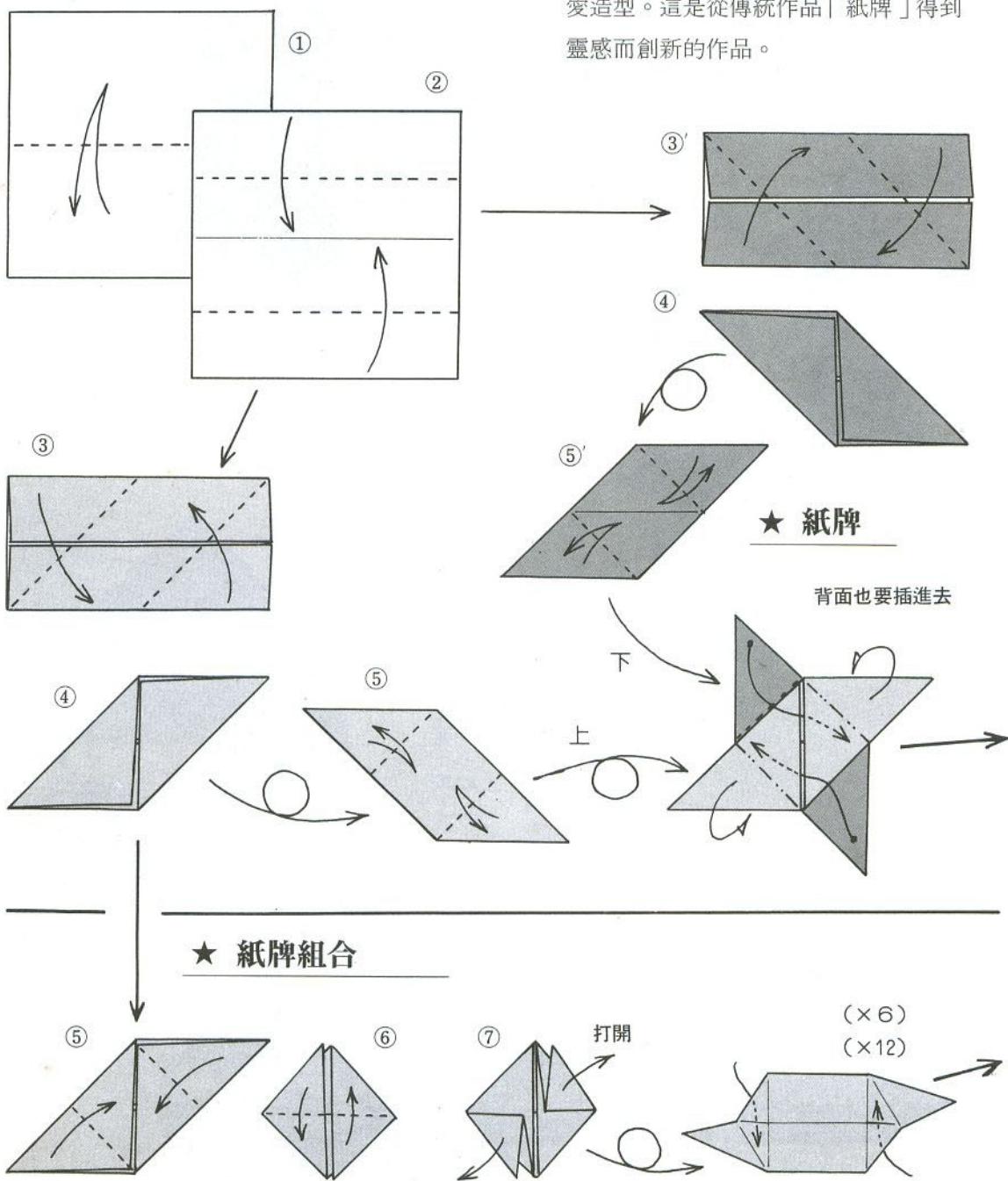


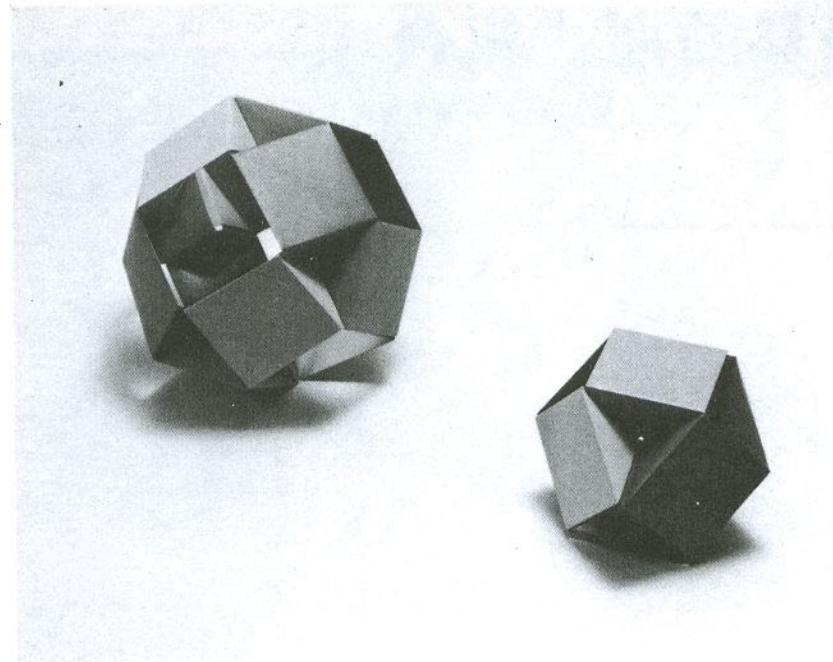
照下圖依次組合  
12張紙型



# 紙牌組合

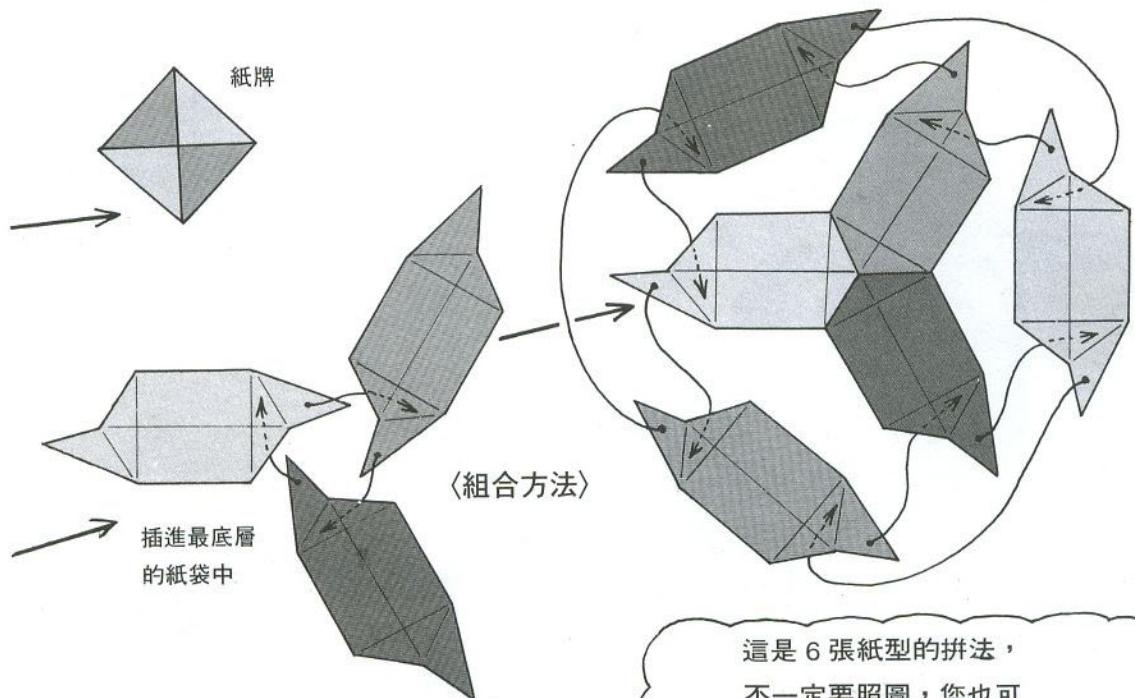
可以做成紙牌，稍微改變折法，做6~12張紙型，又可組合成有凹洞的可愛造型。這是從傳統作品「紙牌」得到靈感而創新的作品。





左：12張組合

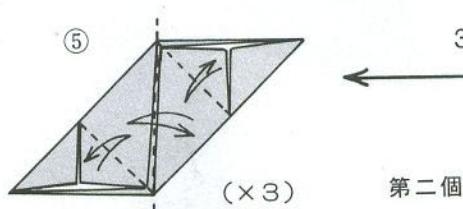
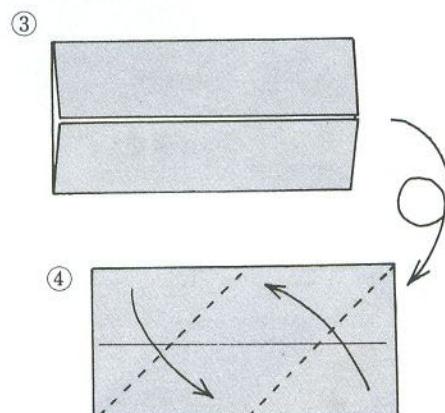
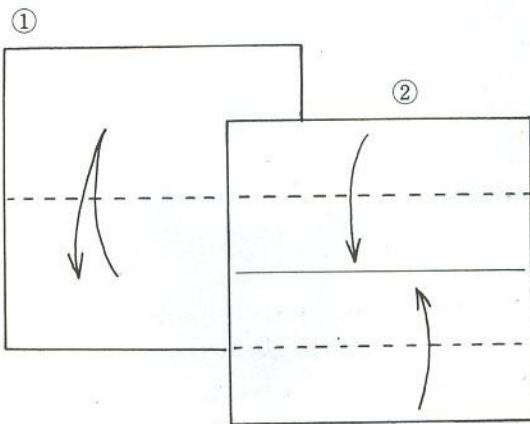
右：6張組合



# 簡易園部式組合

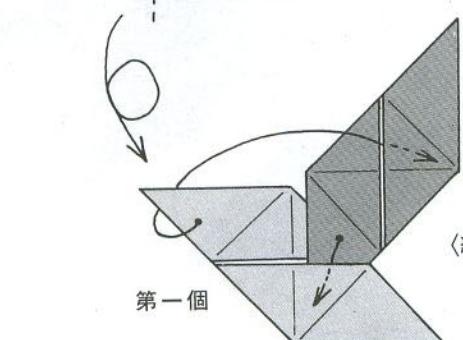
( 笠原邦彥所創 )

「園部式」是世界上最為人熟知的一種組合方法。它的創始人原是園部光伸，這是將它簡化為更好折的一種新折法。



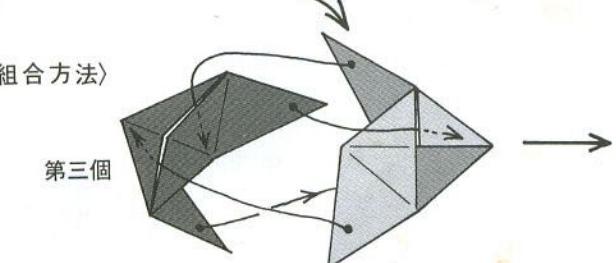
3 張組合

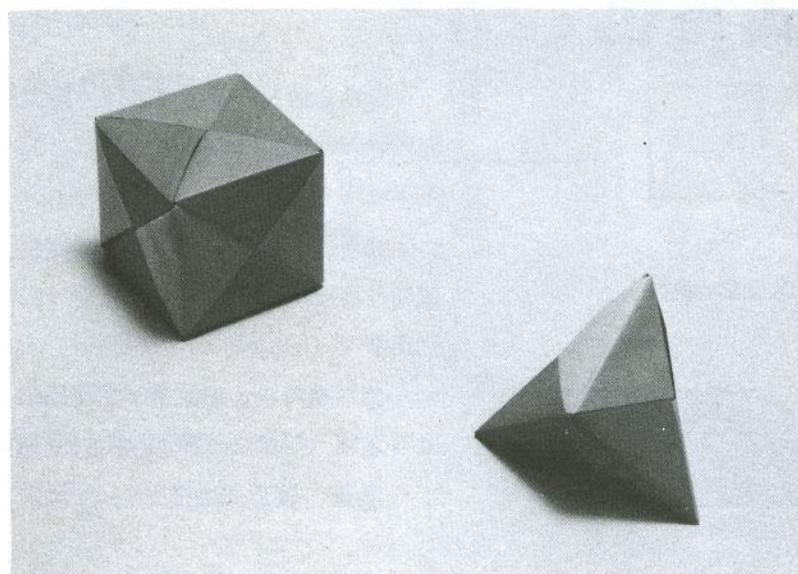
6 張組合



〈組合方法〉

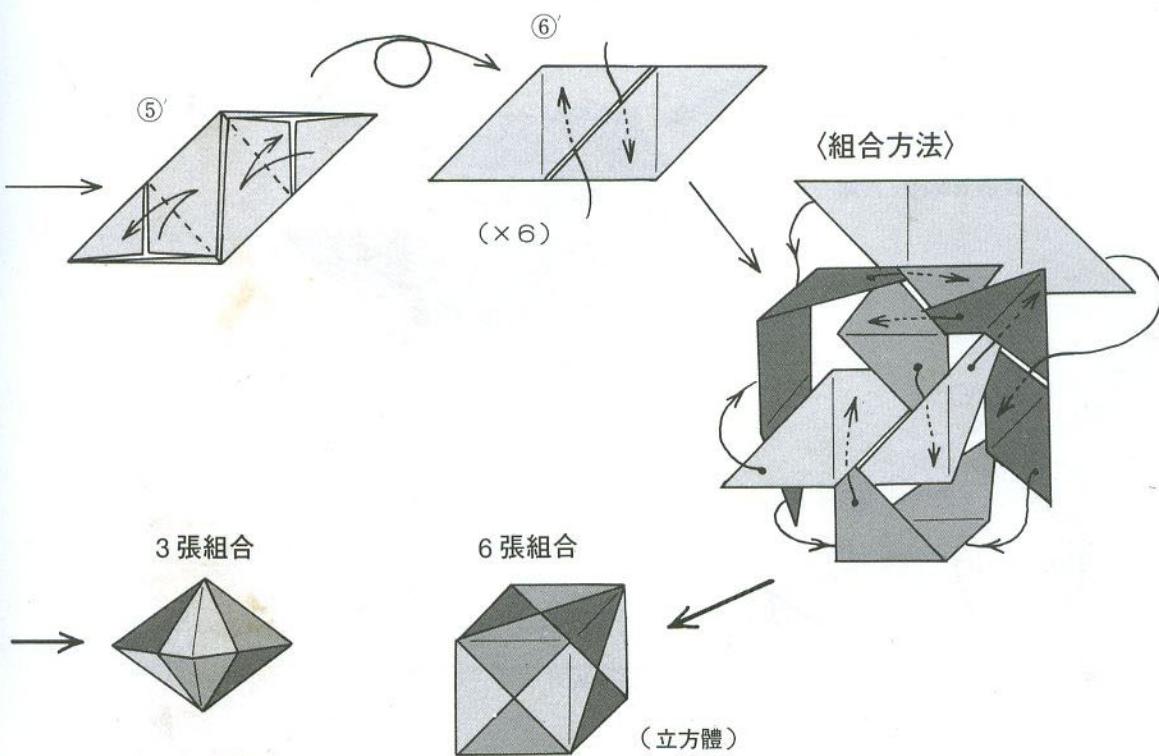
第三個





左：6張組合

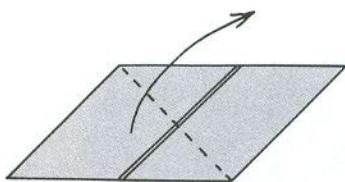
右：3張組合



# 各式香包

學會 3 張及 6 張組合之後，接著是球形組合——向各種美麗的紙香包挑戰吧！在挑戰之前，以下幾點是您必須先知道的。

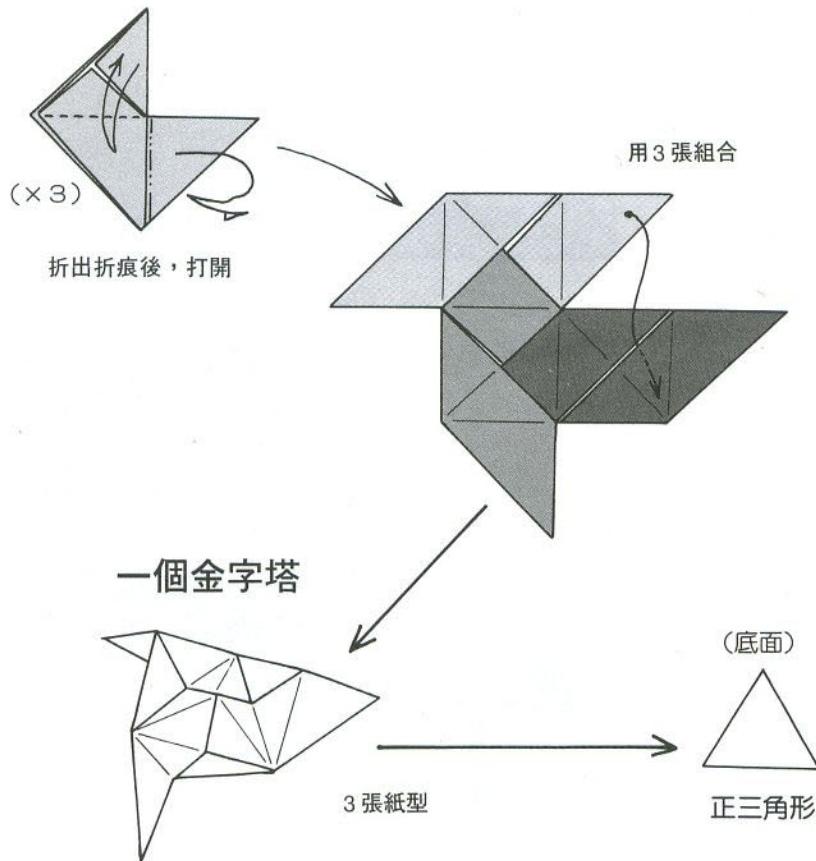
從 24 頁的④開始



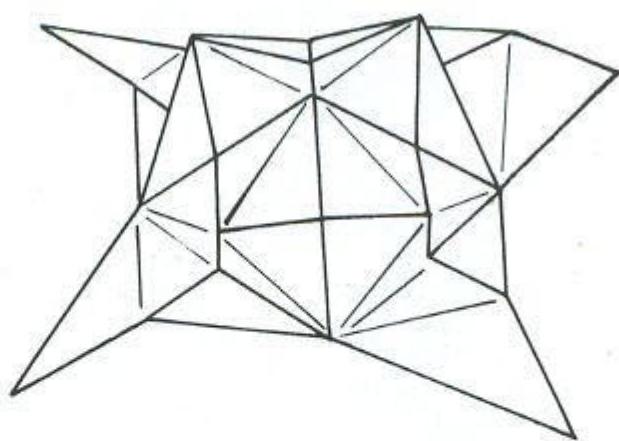
如下圖，當您將三張紙型組合完成後，正中間會有一個向外突出的金字塔。翻過來看，底部的形狀則是一個正三角形。

如右圖所示，如果金字塔有四個，底面就呈正方形；若有五個，則是正五角形；若有 6 個，則是正六角形。

然後，就以這些要點，試著拼出香包吧！

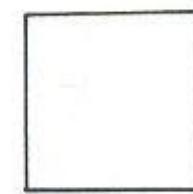


### 四個金字塔



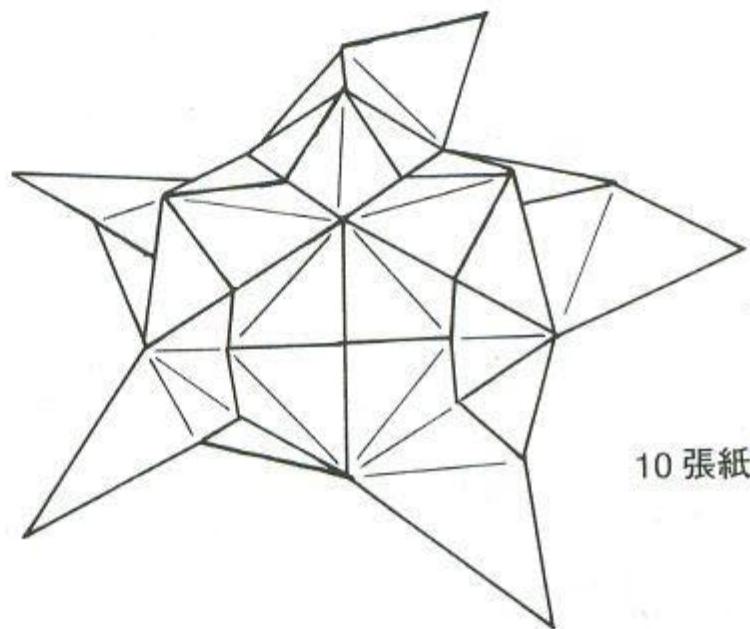
8 張紙型

(底面)



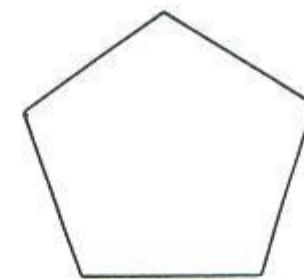
正方形

### 五個金字塔



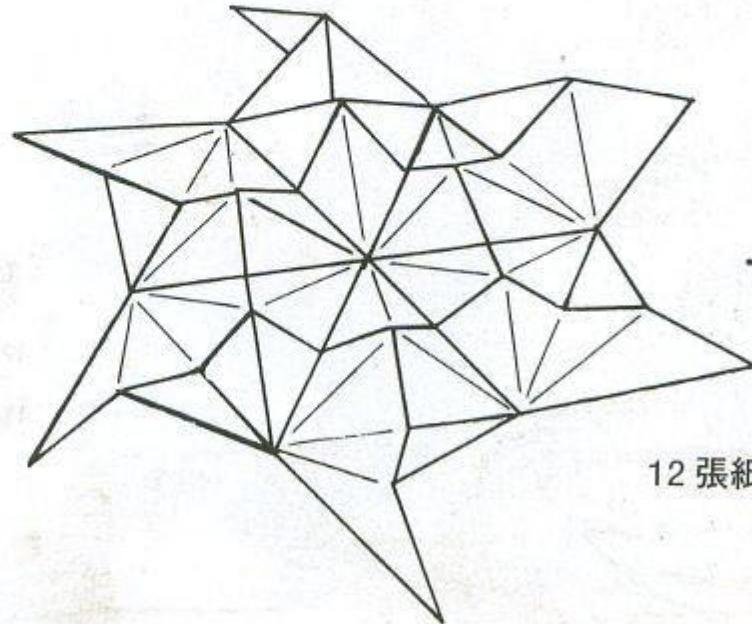
10 張紙型

(底面)



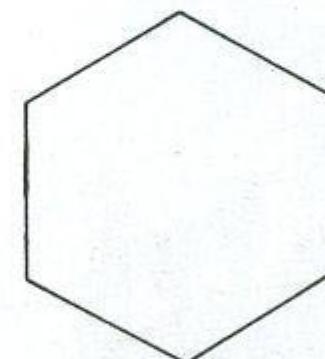
正五角形

### 六個金字塔

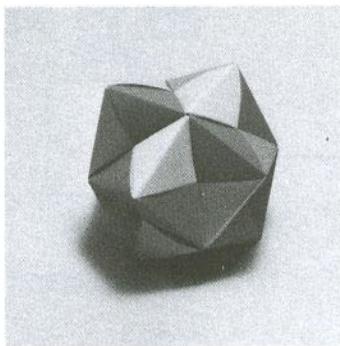


12 張紙型

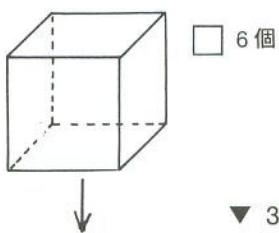
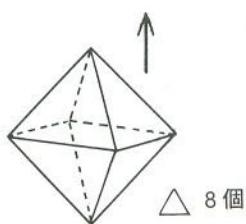
(底面)



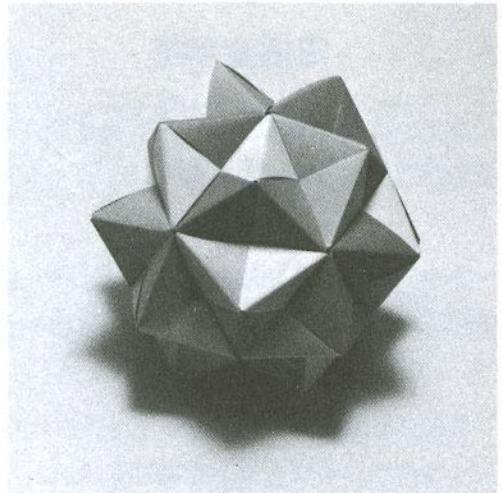
正六角形



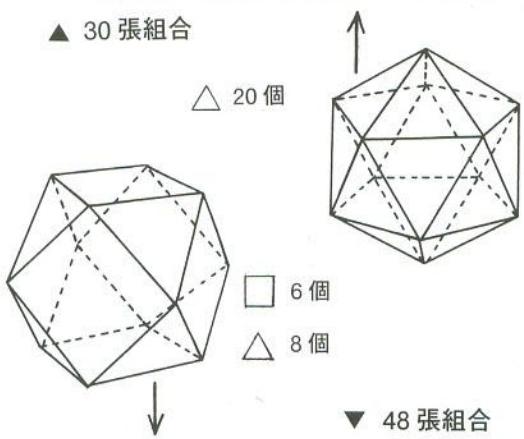
▲ 12 張組合



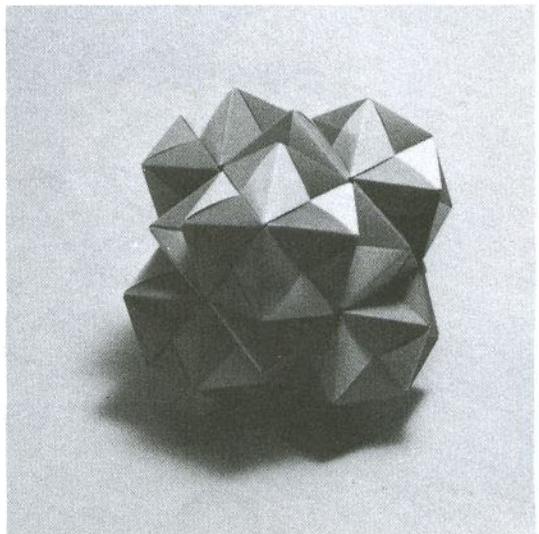
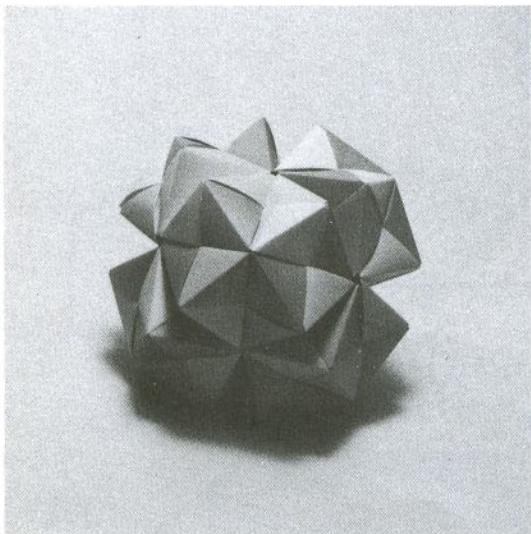
▼ 36 張組合



▲ 30 張組合



▼ 48 張組合



以上這些組合的方法及構想，是經過這個「簡易菌部式」的發明人笠原邦彥，以及寺田德重，松崎雅夫等，許多人的苦心研究而得，在此介紹的只是其中的一部份而已。因此，可能有許多人早已知道這些組合方法了。

不過，如果有人是初次接觸，並想得到更深入了解的話，可以參考以下二本書。在這二本書中，也談到這個紙型的其他組合方法。

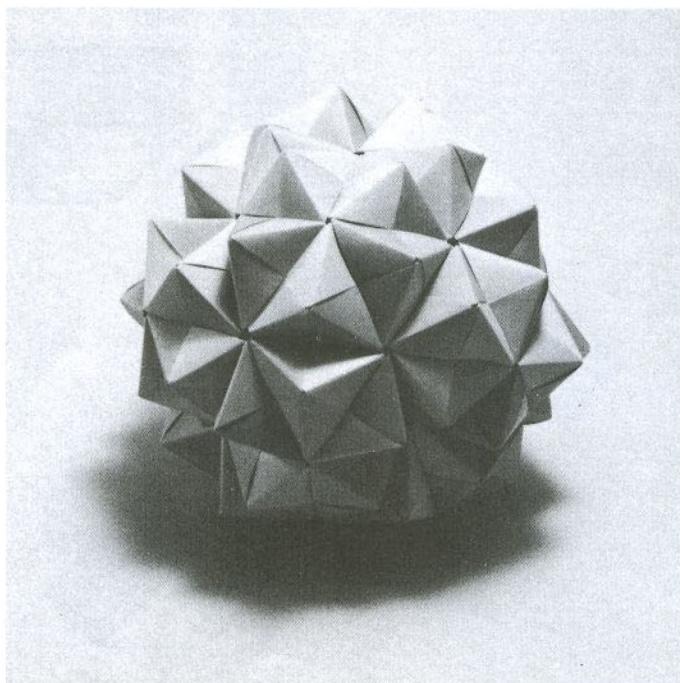
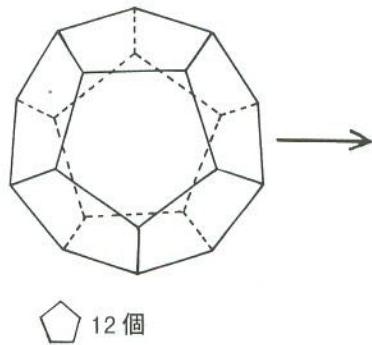
「最新折紙集匯」 日本文藝社

笠原邦彥著

「尖端折紙」 聖立歐出版

高演利惠監修 笠原邦彥著

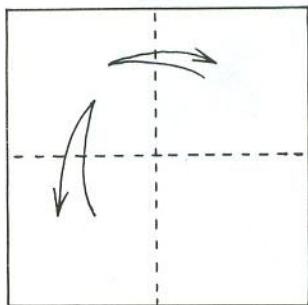
▼ 90 張組合



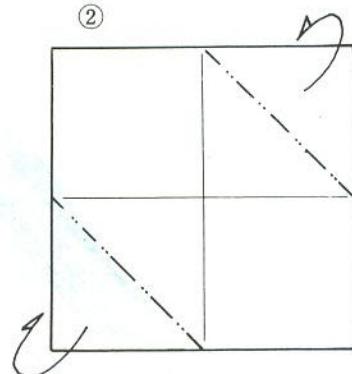
# 捏折

如同 16 頁為「吹陀螺」加以裝飾一樣，這一次是以簡易圓部式紙型為基礎，加上凸形的捏折所完成的造型。

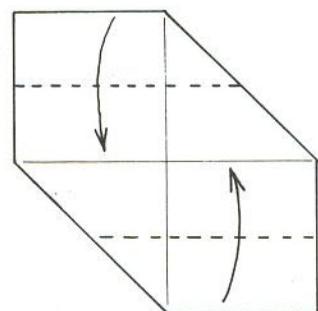
①



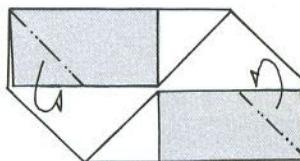
②



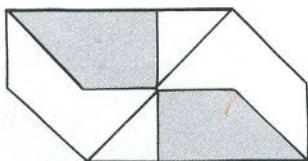
③



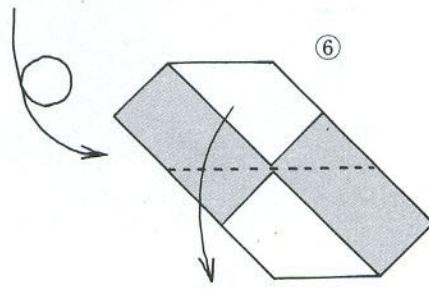
④



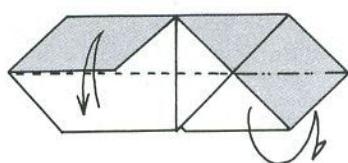
⑤

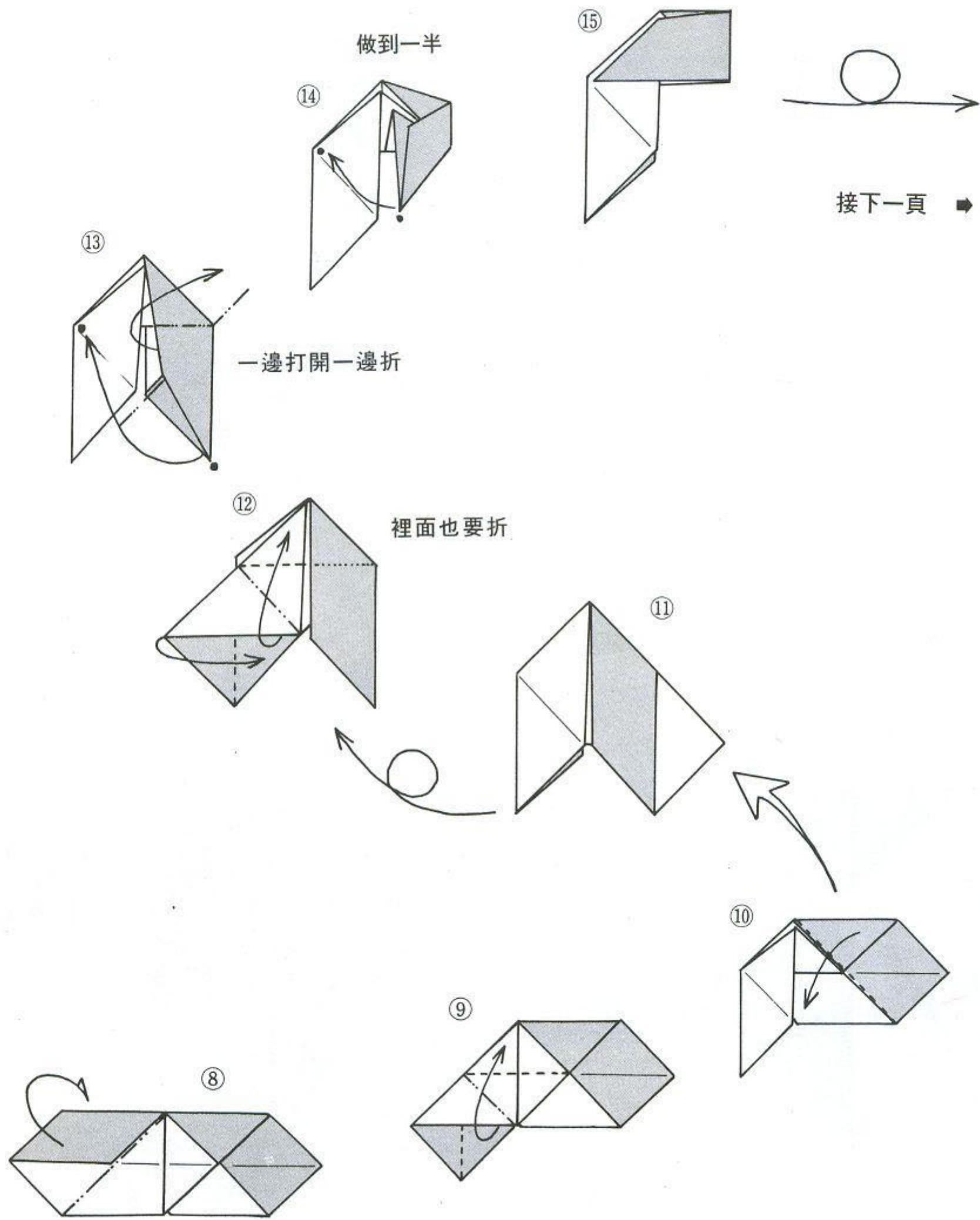


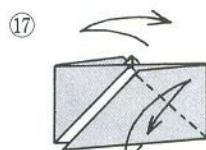
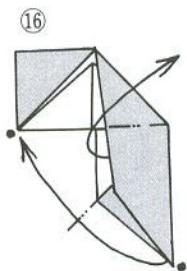
⑥



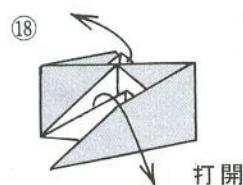
⑦







折出折痕

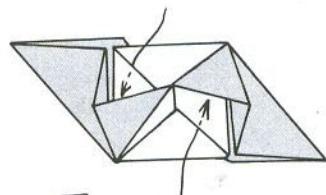
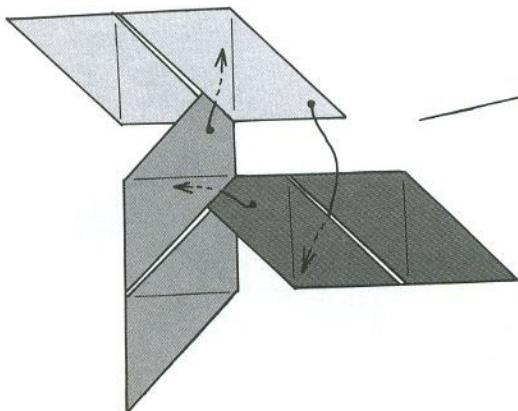
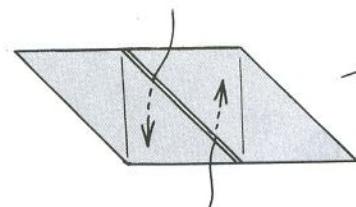


打開

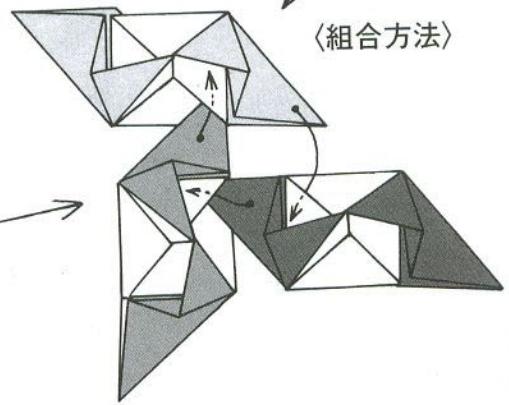
折法同(13)(14)

### 比比看！

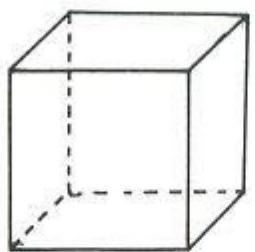
架構和 26 頁一樣，只是  
左右相反



〈組合方法〉

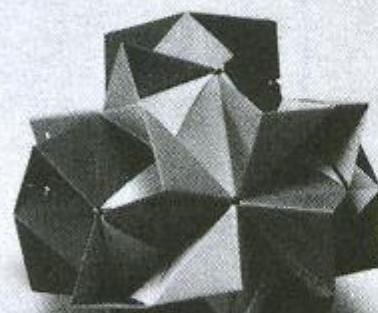


組合張數同 24 頁的「簡易菌部式」

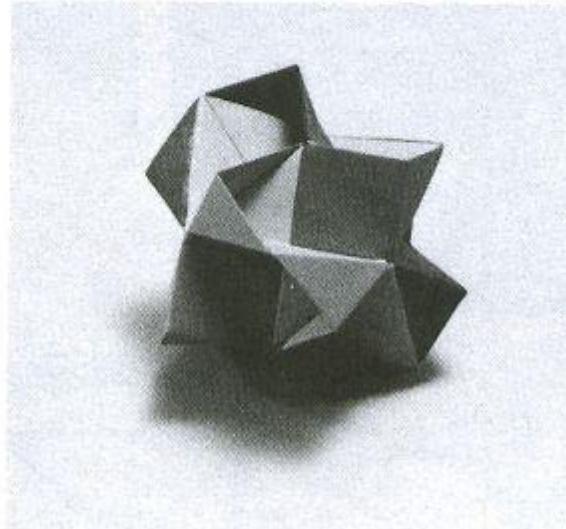


□ 6 個

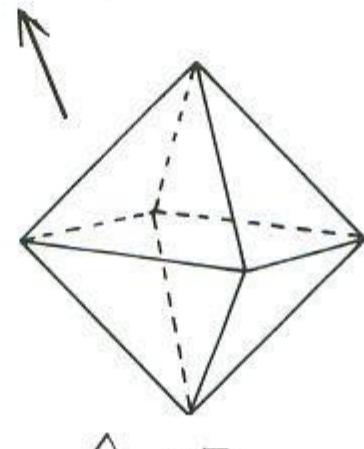
▼ 12 張組合



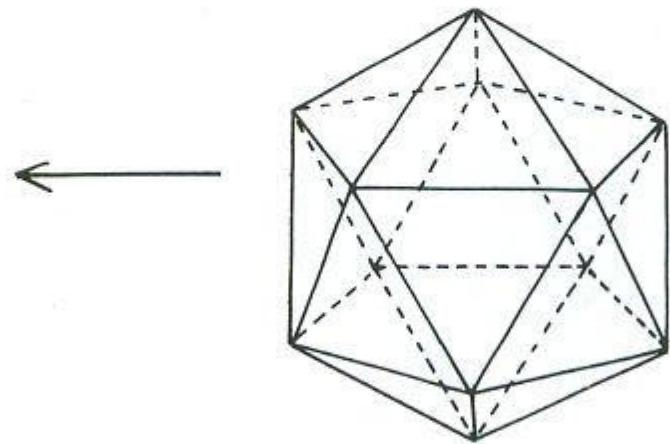
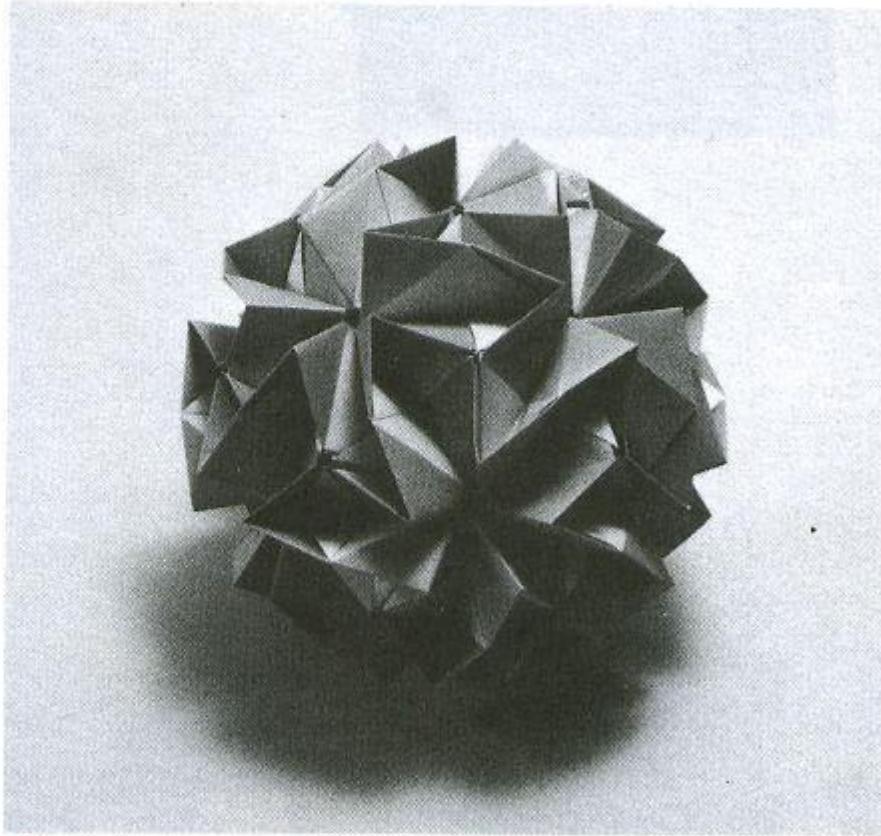
▼ 6 張組合



▼ 30 張組合



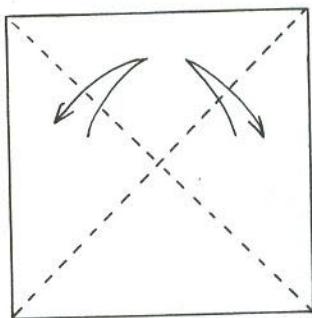
△ 8 個



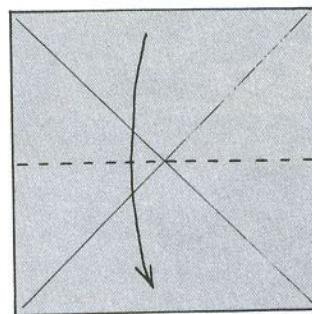
△ 20 個

# 花粉

花粉其實有各種不同的形狀，而這個究竟是像哪種植物的花粉呢？

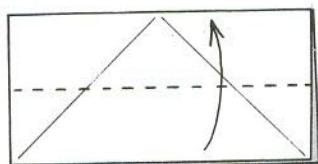


①



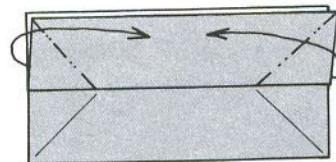
②

③

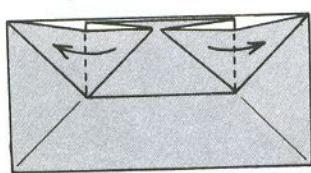


只折一張

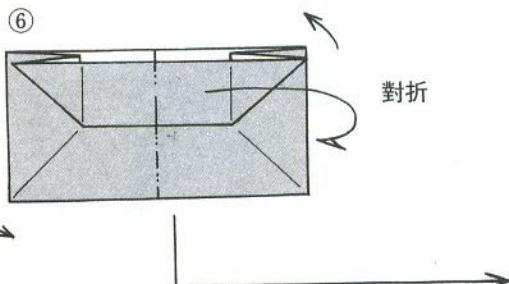
④



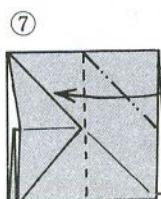
⑤



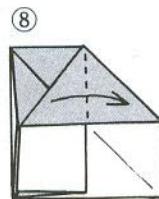
⑥



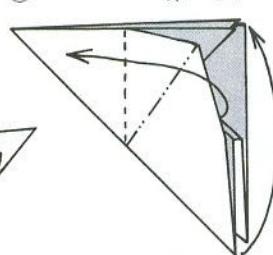
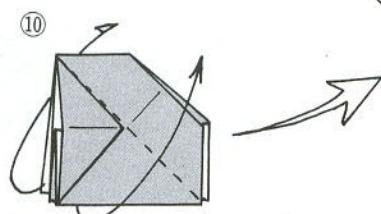
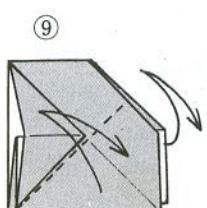
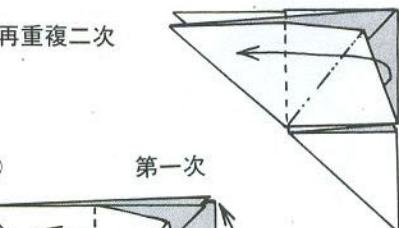
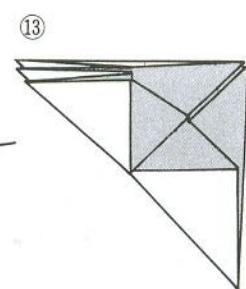
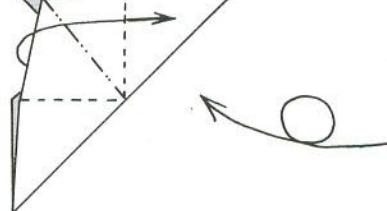
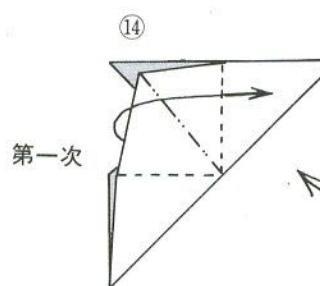
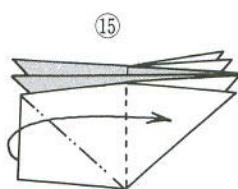
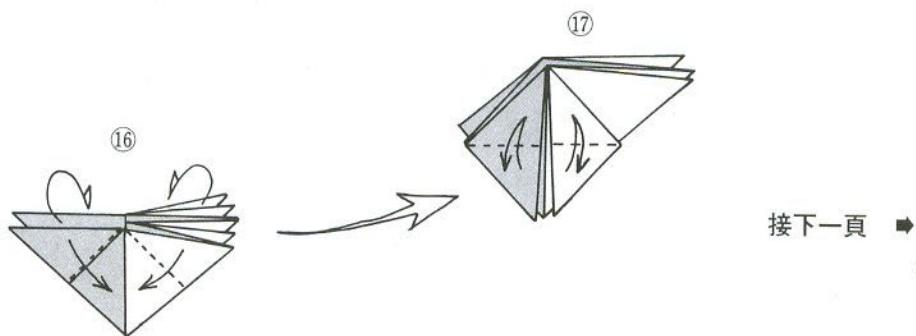
改變位置

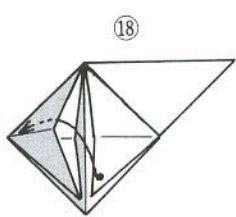


⑦

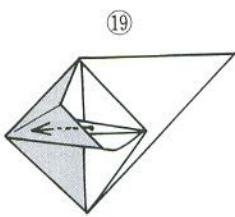


⑧

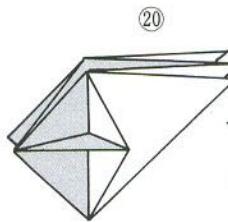




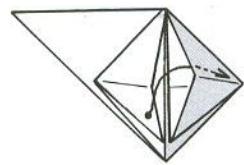
一邊將之立起  
將一角插進紙袋中



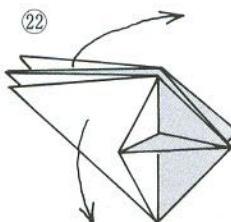
做到一半



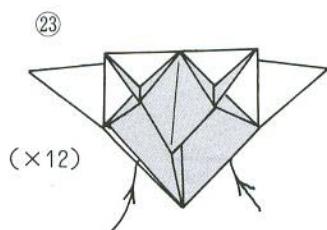
②〇



另一邊也是  
同樣折法

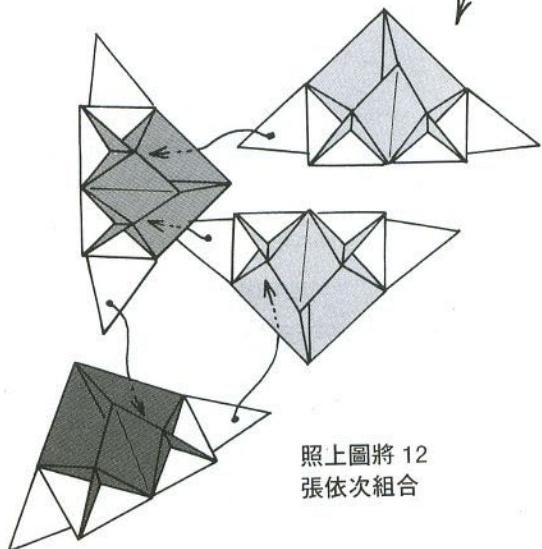


打開

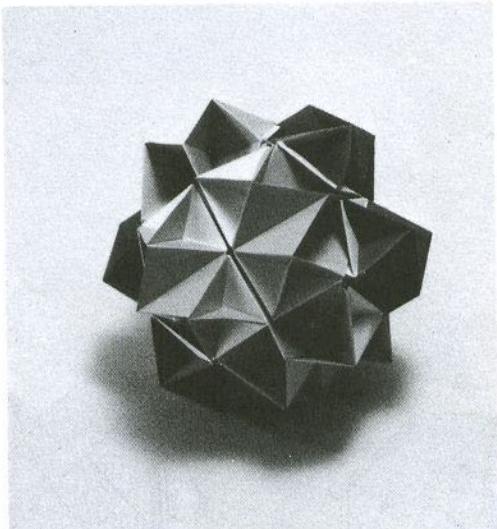


(×12)

〈組合方法〉

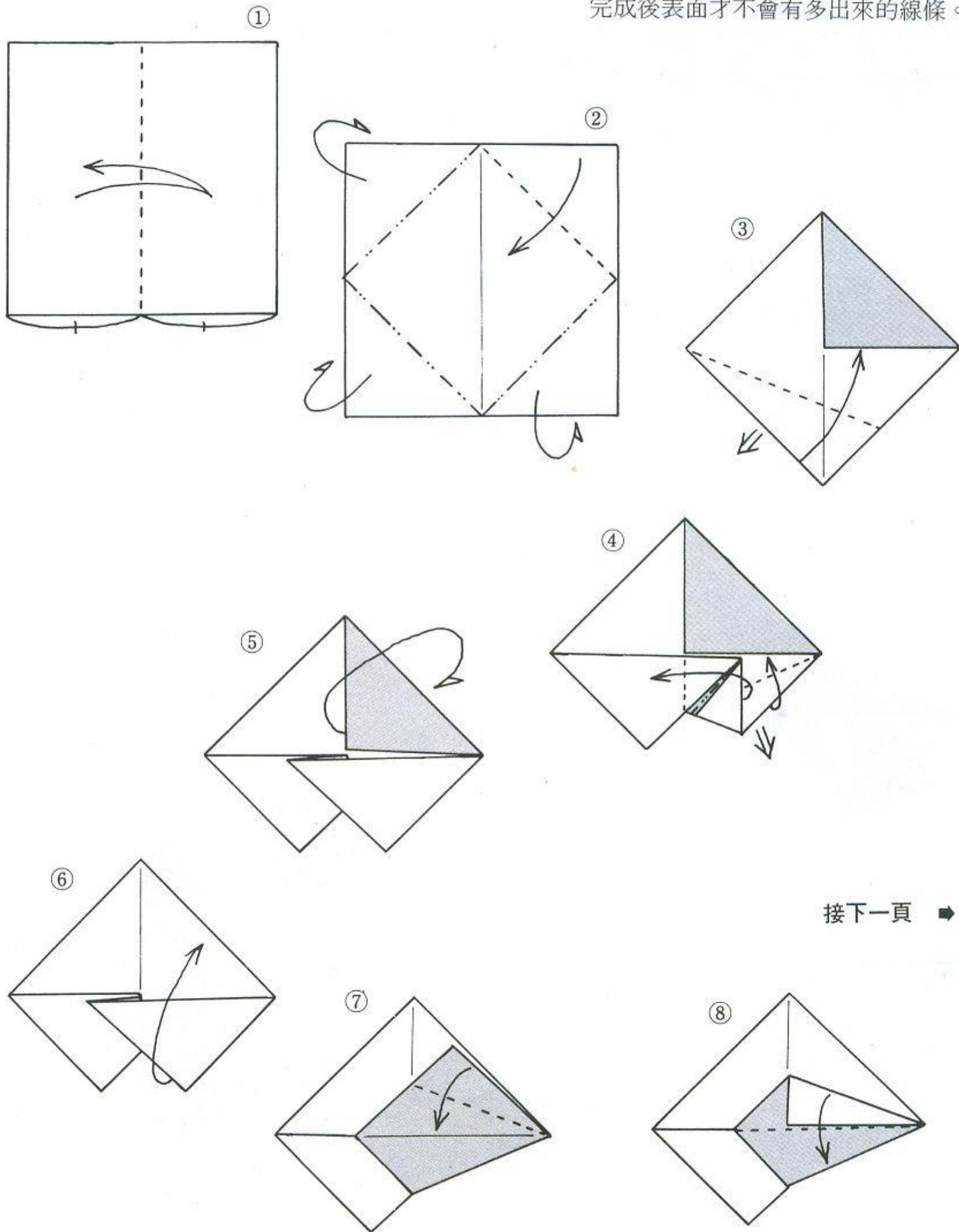


照上圖將 12  
張依次組合

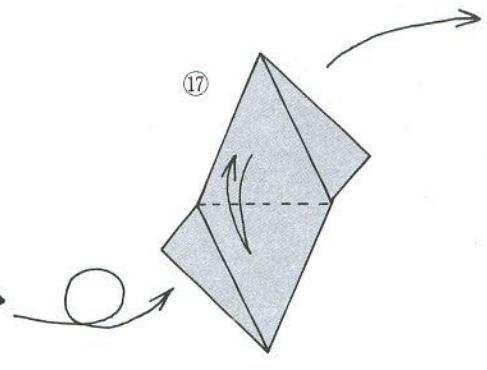
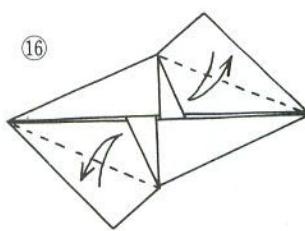
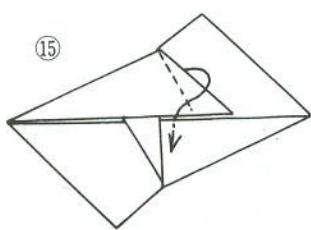
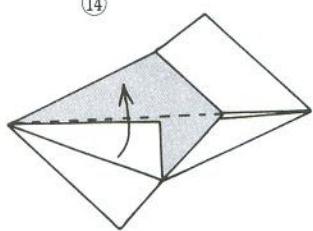
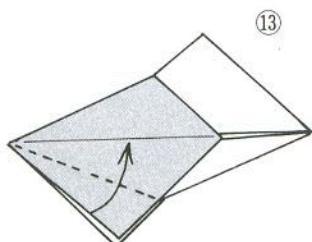
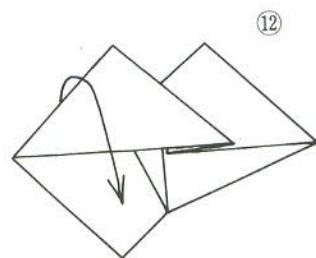
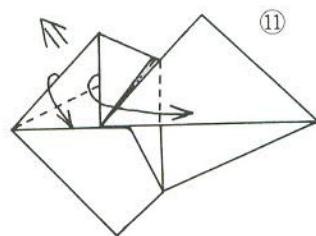
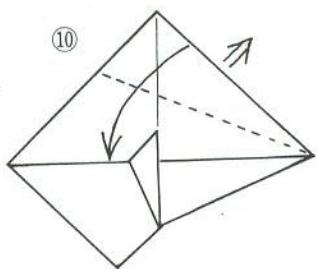
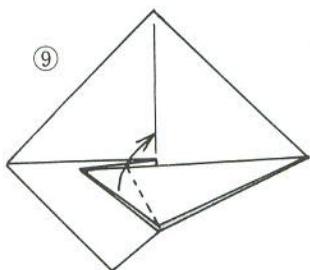


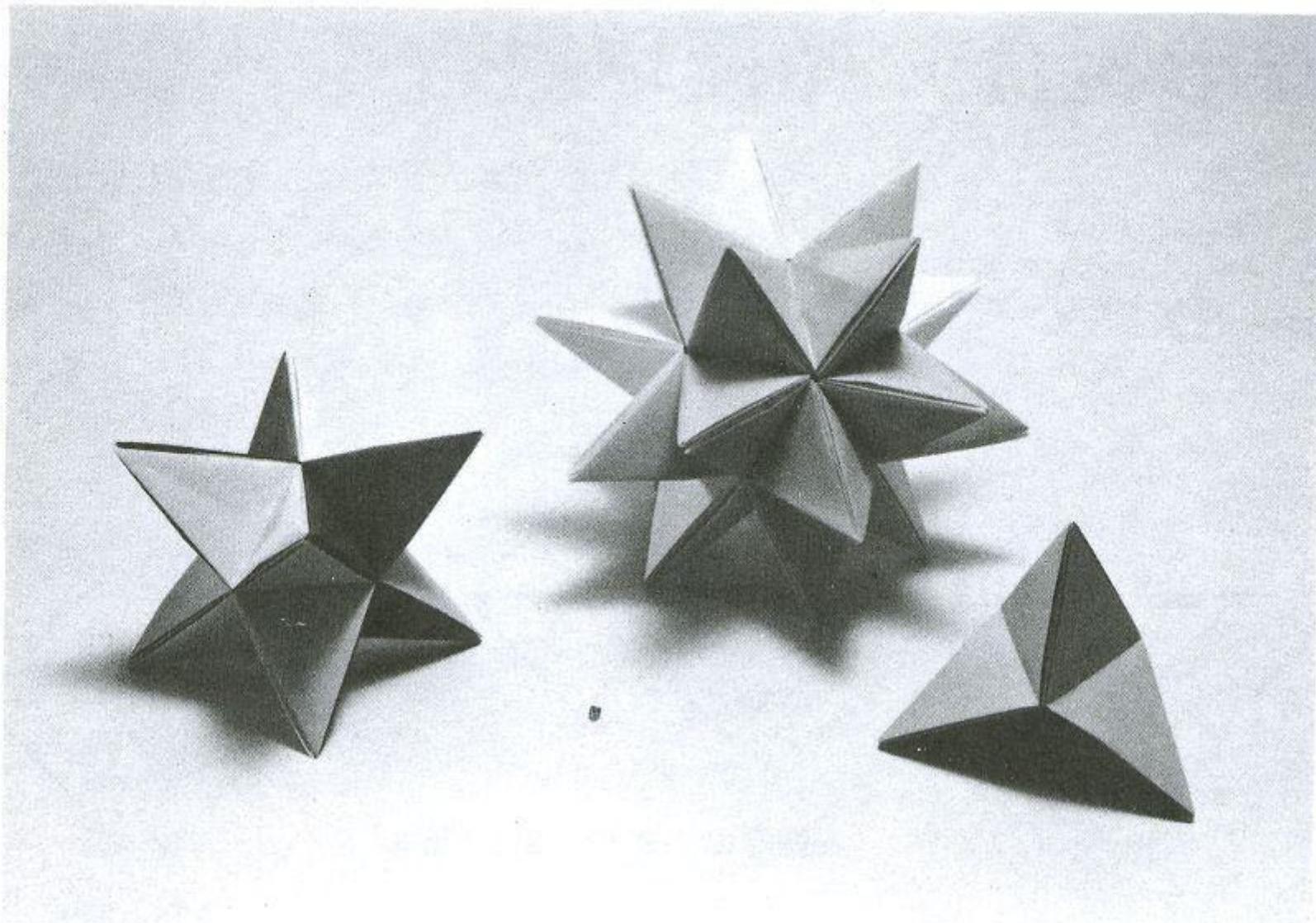
# 菱形組合

這個菱形是由兩個三角形連在一起構成的。步驟①～③要仔細用心地做，完成後表面才不會有多出來的線條。



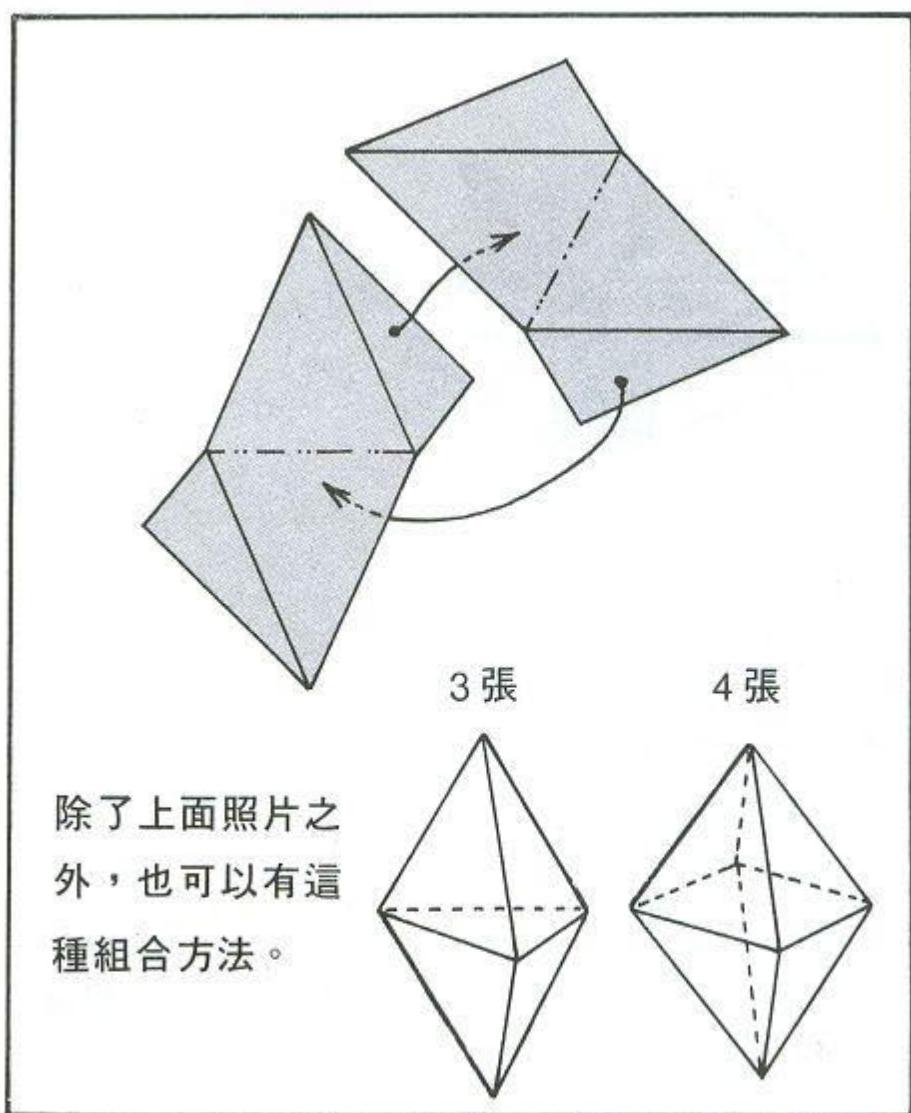
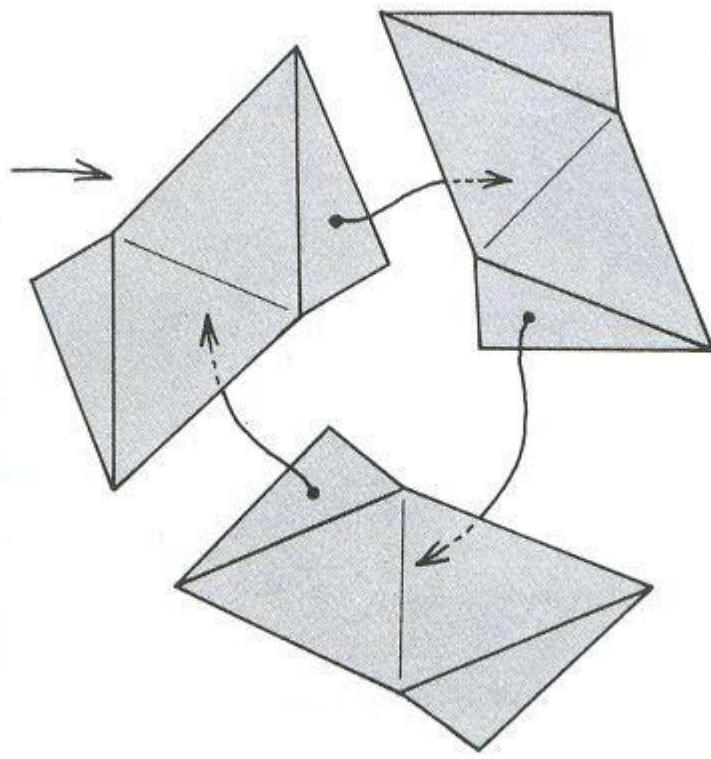
接下一页 ➔





▲ 左起：12 張、30 張 6 張組合

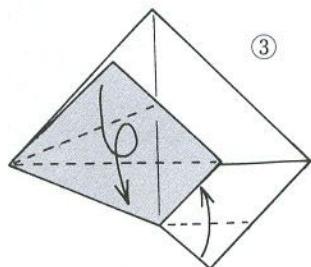
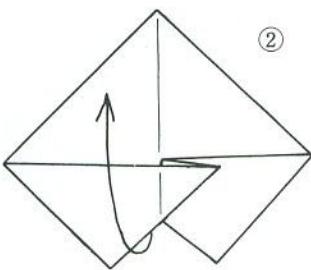
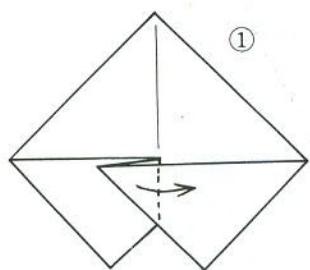
〈組合方法〉



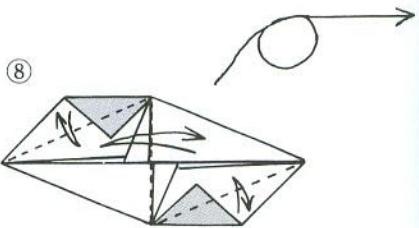
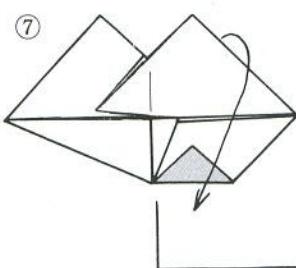
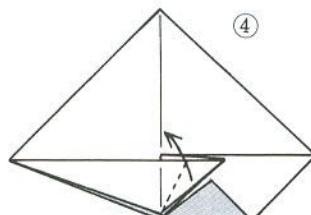
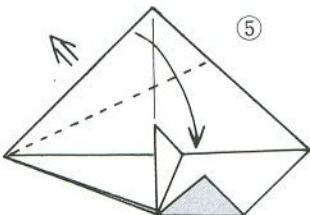
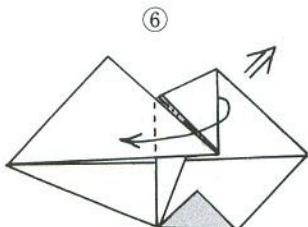
# 菱形組合・橄欖球組合

將插入紙袋的翼與紙袋左右位置對調，也就是「逆折」，這種紙型可以組合出橄欖球狀的造型。不過，它的拼法比較脆弱，是必須克服的一點。

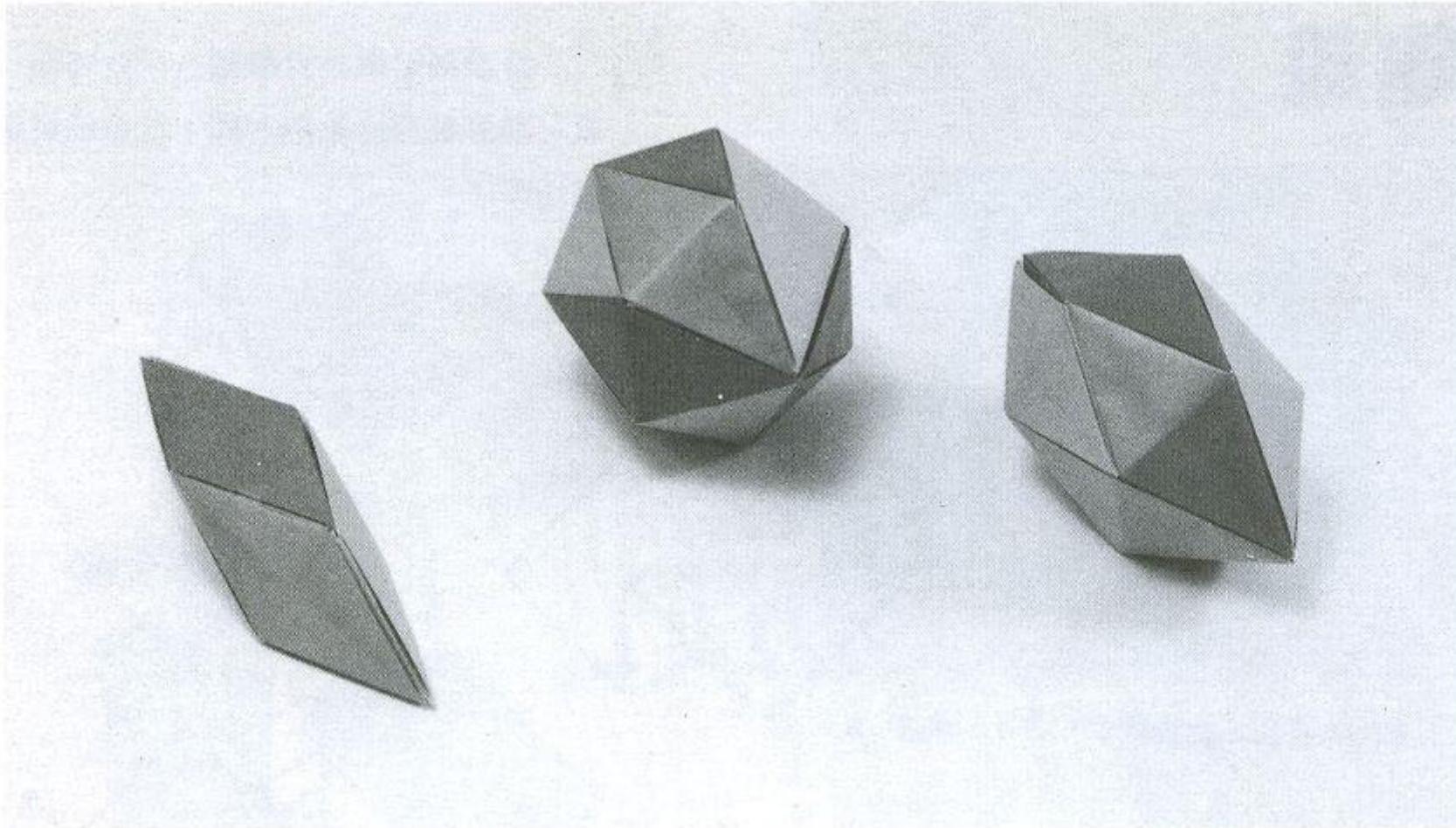
## ★ 逆折



從 37 頁的⑥開始

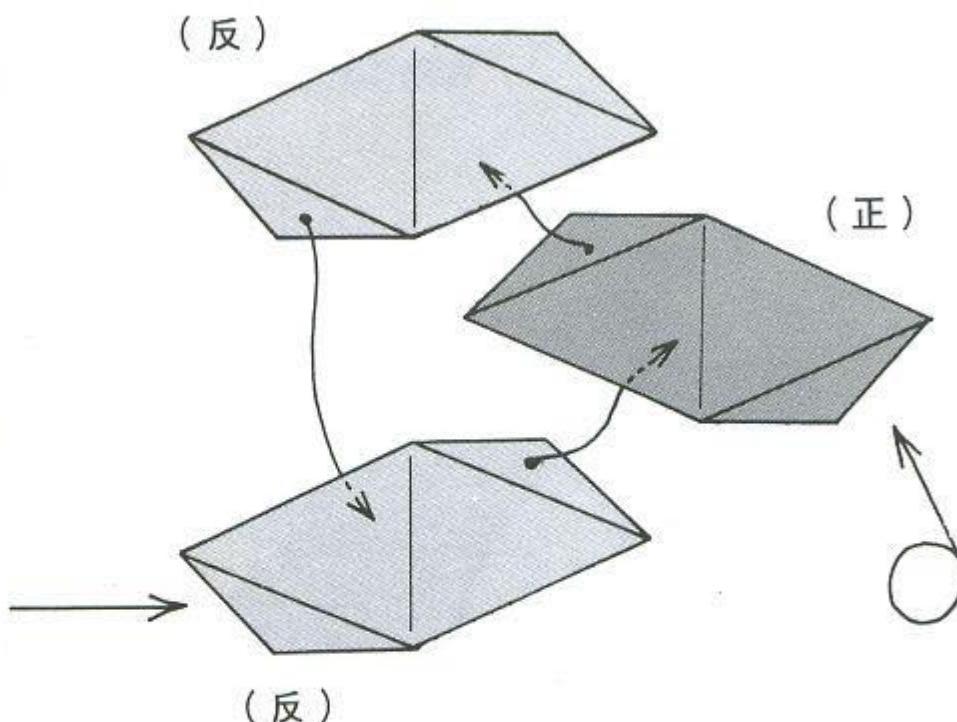


以下折法同①～④

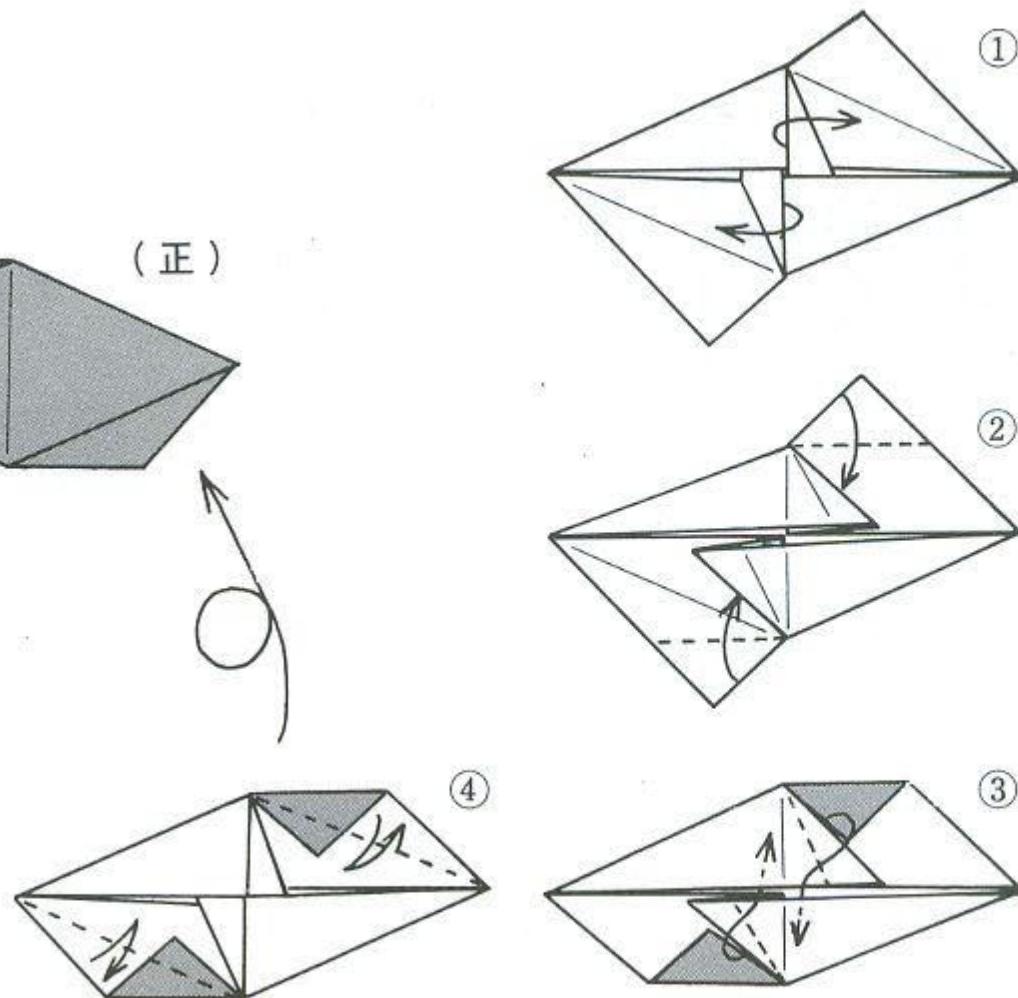


▲ 左起：6 張、12 張、10 張組合

〈組合方法〉

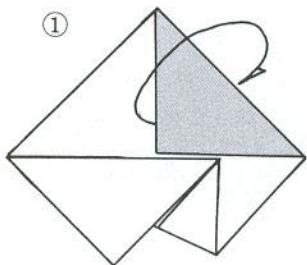


從 38 頁的步驟(16)開始

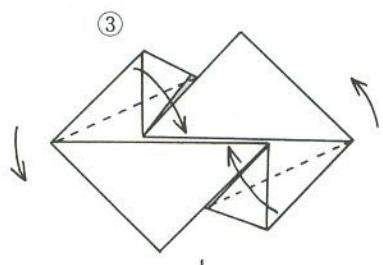
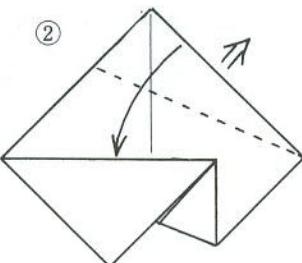


# 龜殼

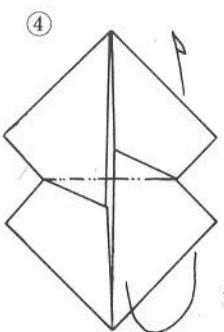
這個造形取材自龜殼，只要將前一頁「菱形組合」的角去掉，就會成為這個造型了。



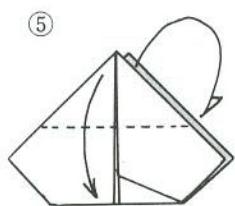
從 37 頁的④開始



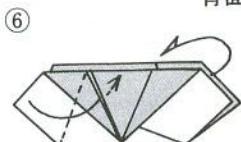
← 改變位置



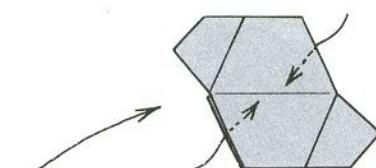
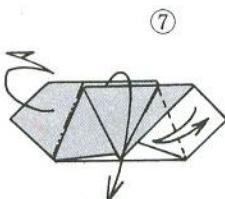
對折



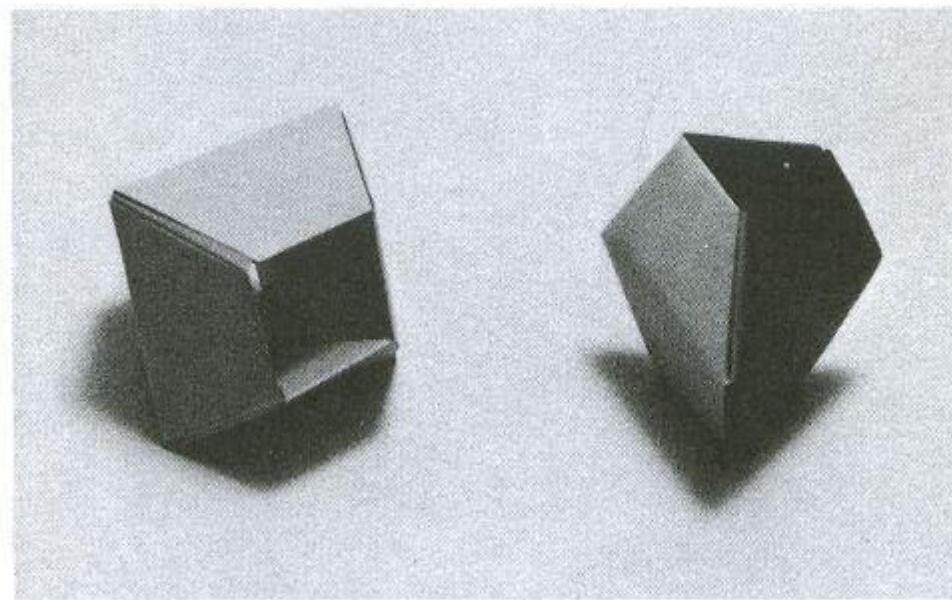
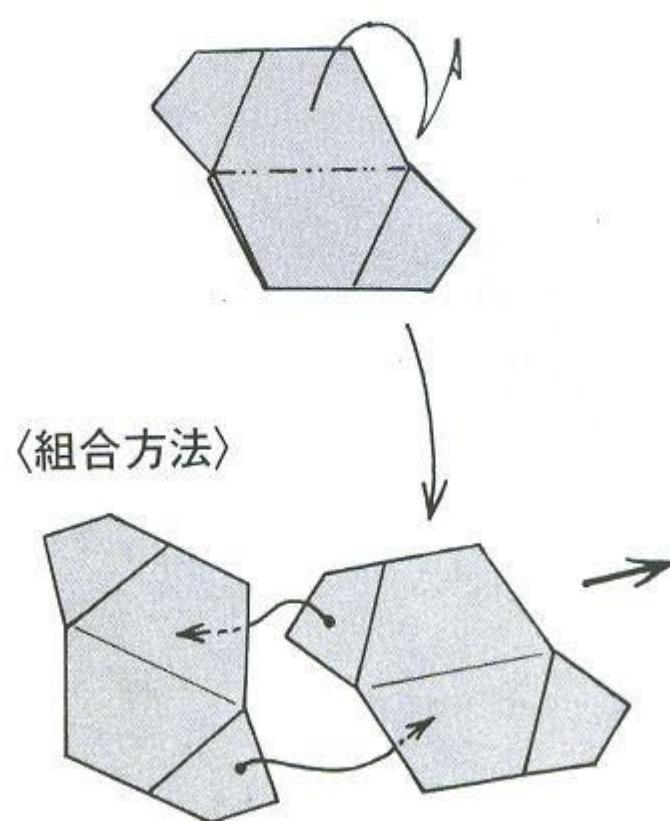
背面也要折



夾進中間



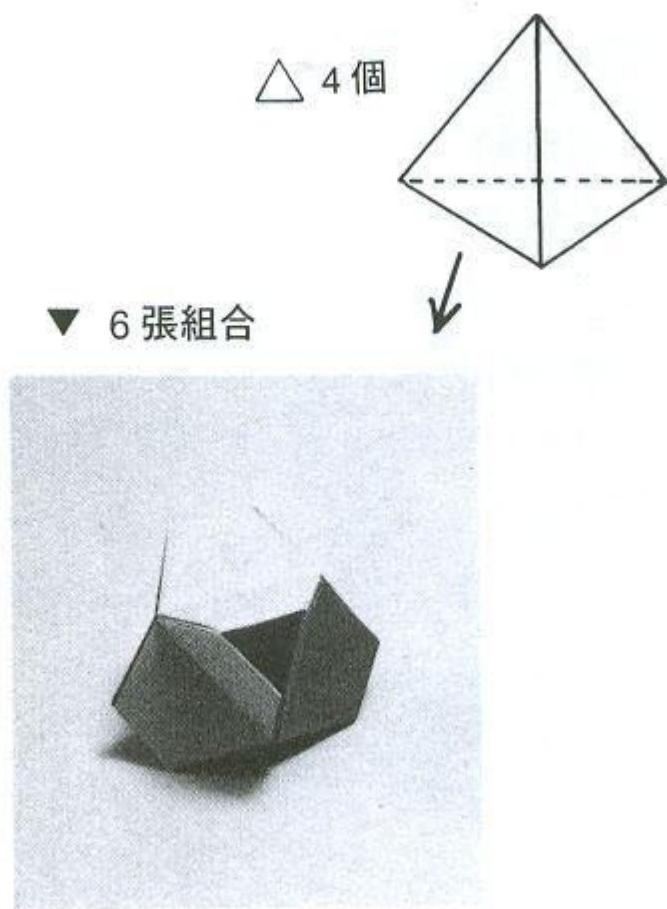
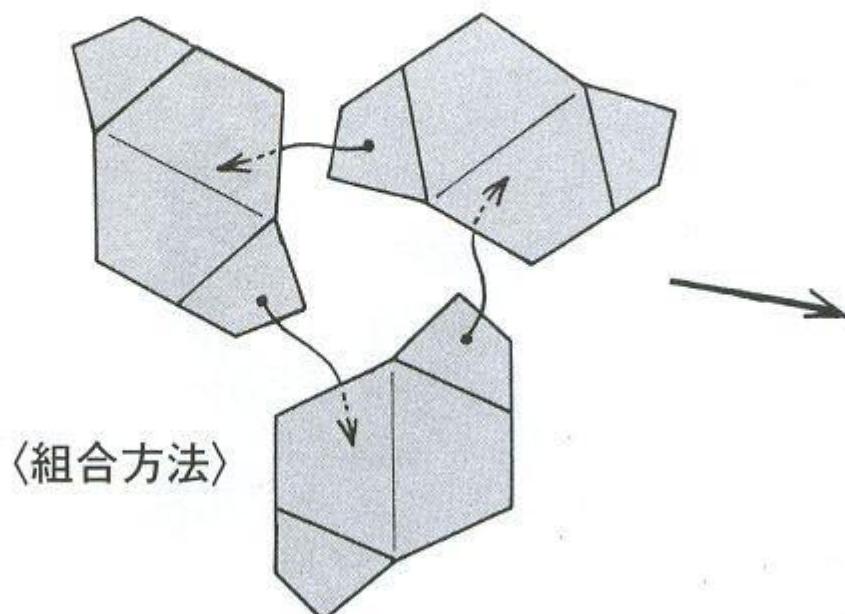
向外折出折痕



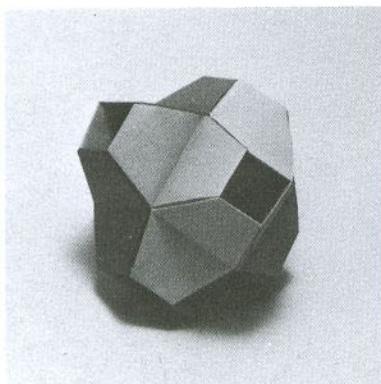
▲ 左起：4張、3張組合

如同「菱形組合」一樣，您也可將龜殼弄凸或弄凹地組合起來。

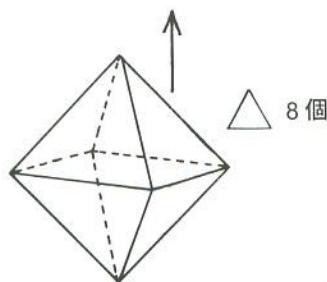
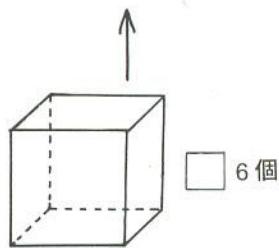
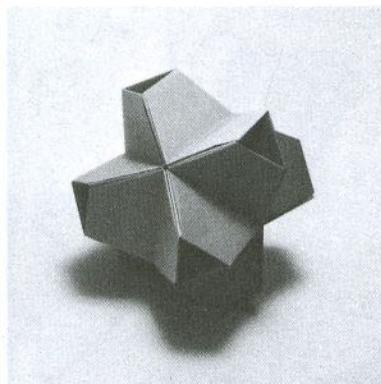
下一頁的許多造型，是根據下圖將它弄凹的方法組合出來的。



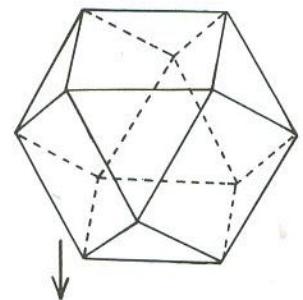
▼ 12 張組合



▼ 12 張組合



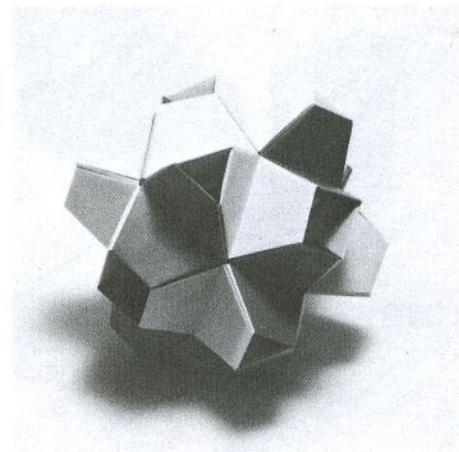
□ 6 個  
△ 8 個



上面二個造型，同樣是由 12 張所  
拼出，但形狀卻不同，這一點是組合式  
折紙最有趣的地方。

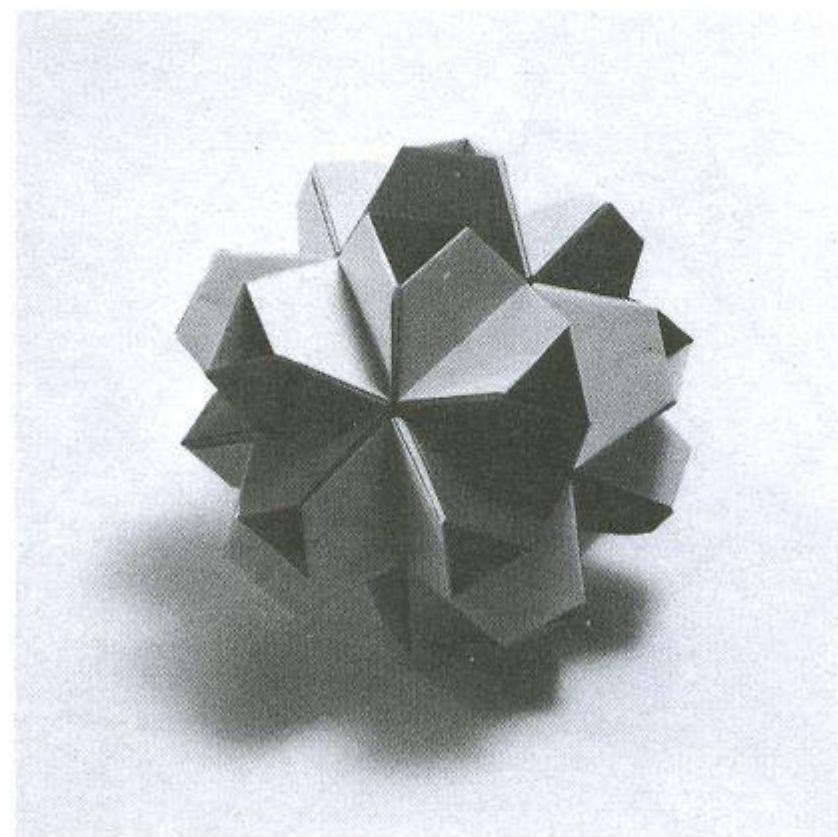
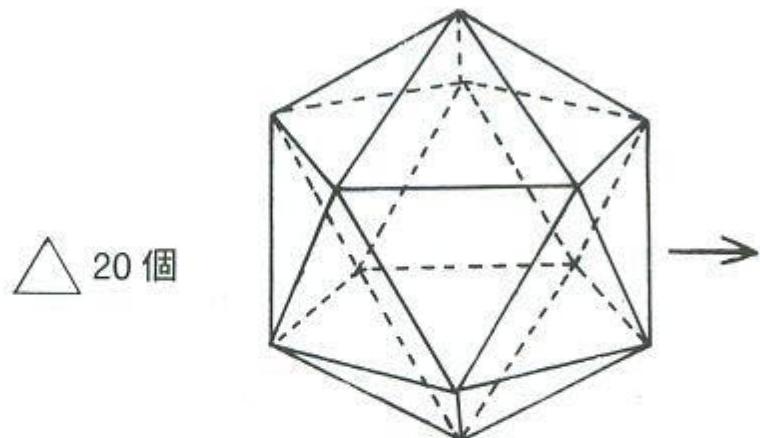
凹洞部份，您可以將它做成三角形  
或四角形。這裡雖沒有五角形的組法，  
您可以參照 53 頁的立體架構，用心地  
做出來。

不過，體積若太大，紙的重量可能  
會破壞組合好的立體，這時候您就必須  
使用漿糊了。

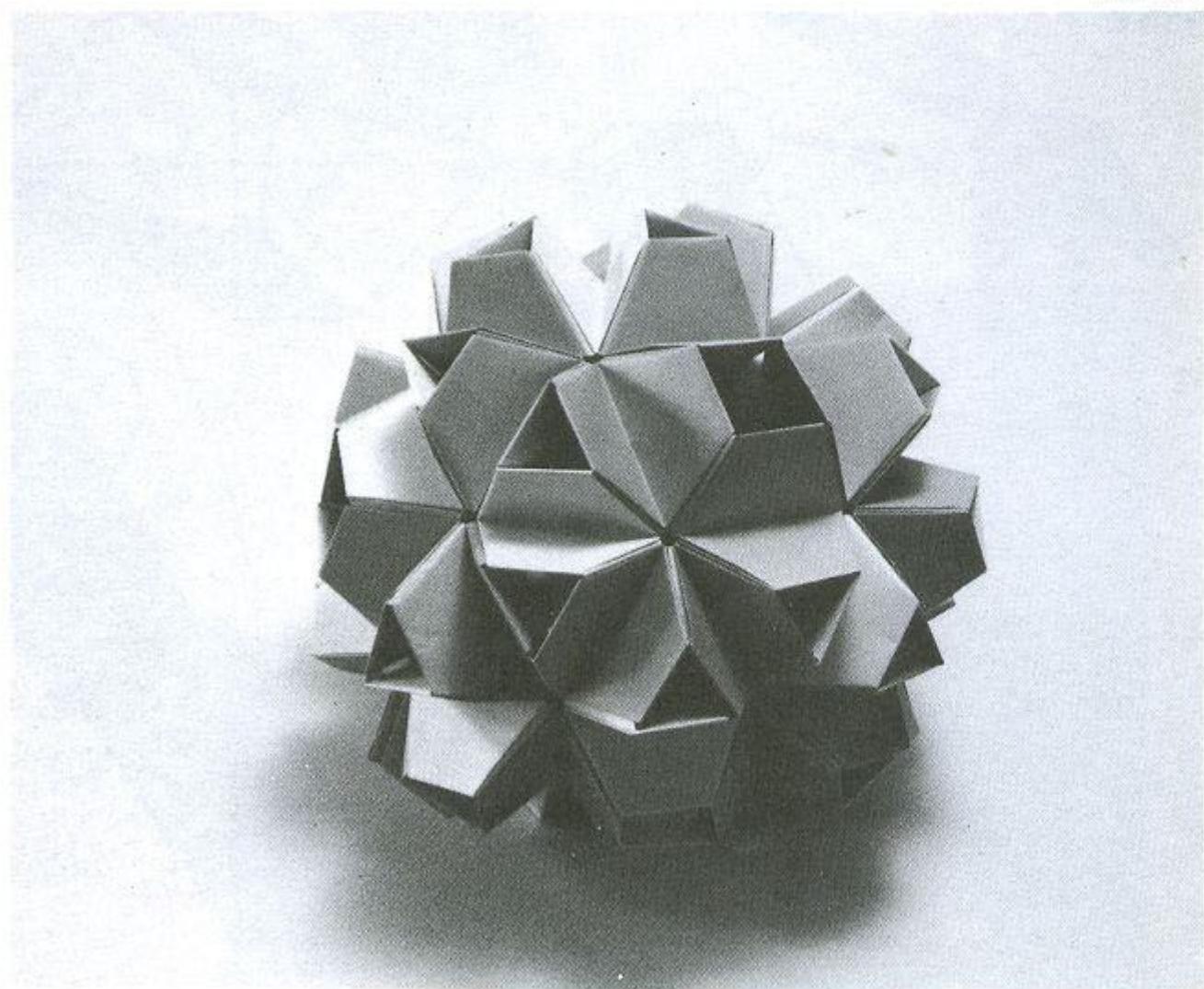
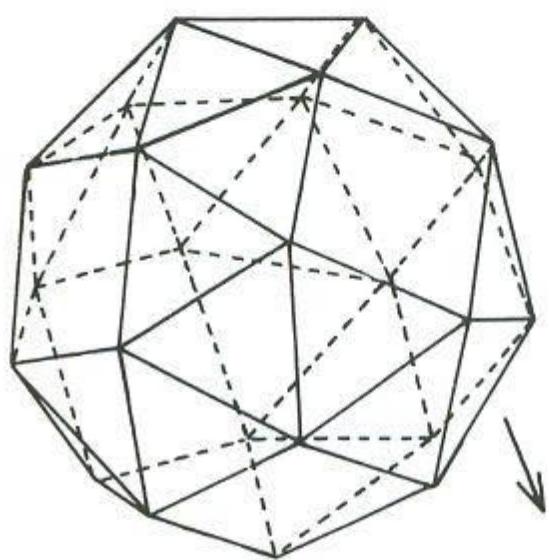


24 張組合 ►

▼ 30 張組合

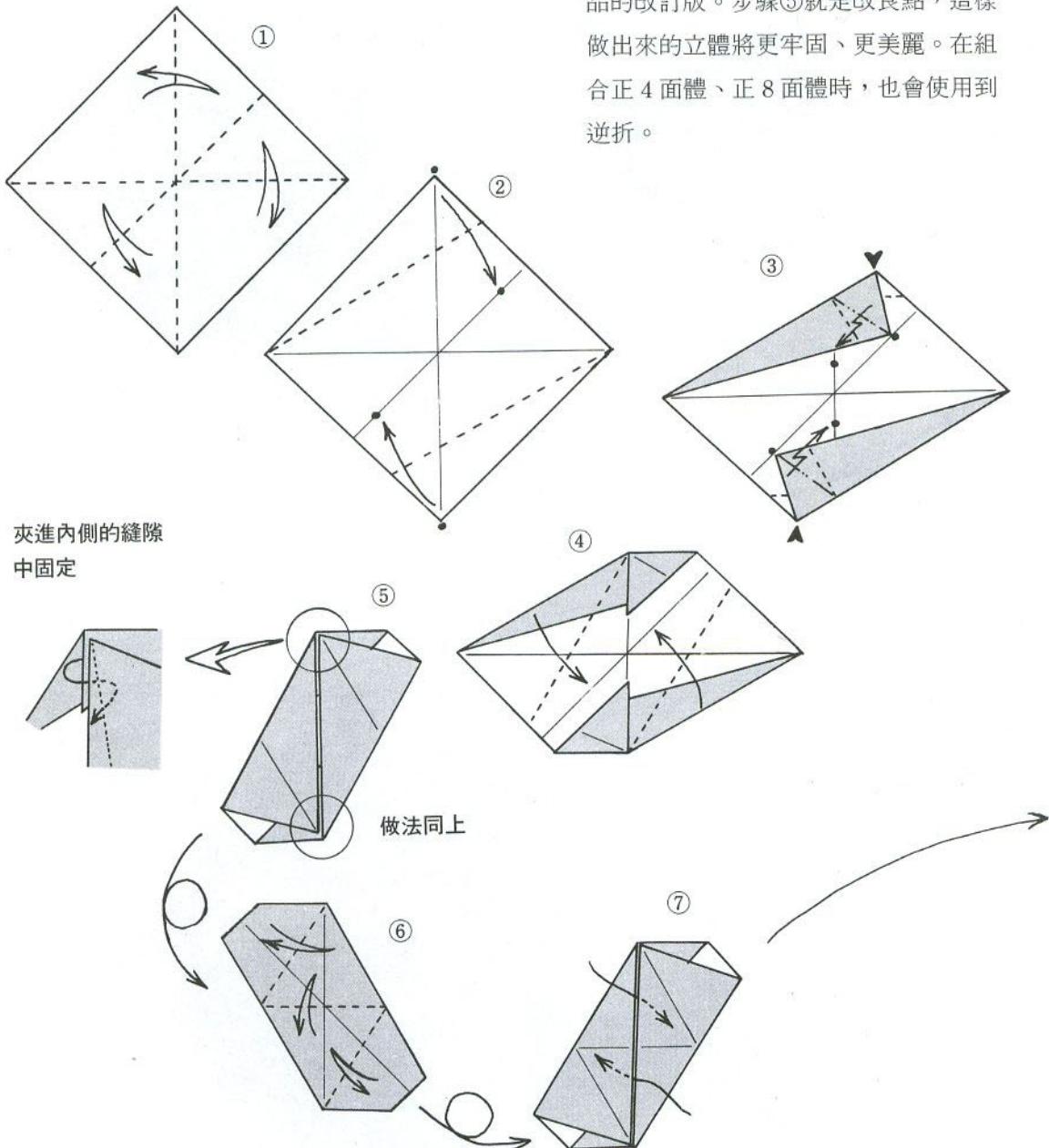


▼ 60 張組合

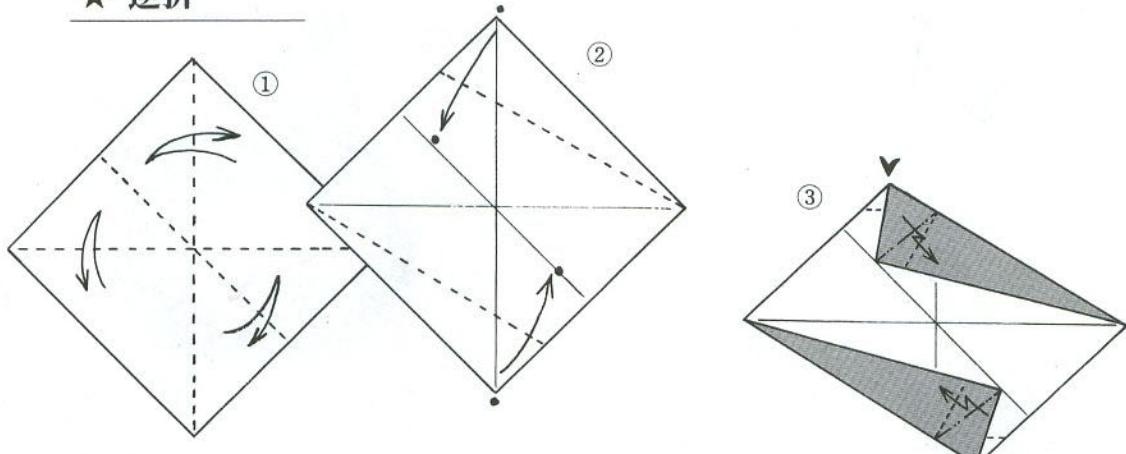


# 正三角形組合・正4、8、20、面體

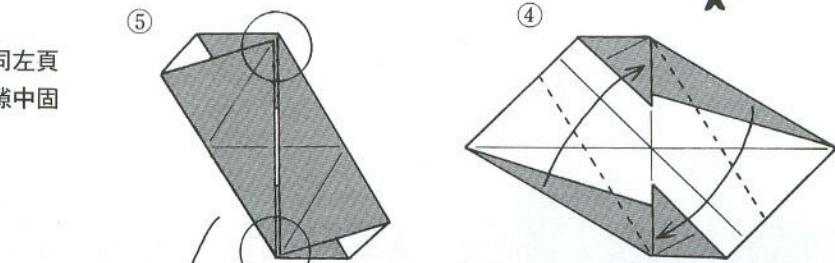
這個折法，可以說是以前發表過作品的改訂版。步驟⑤就是改良點，這樣做出來的立體將更牢固、更美麗。在組合正4面體、正8面體時，也會使用到逆折。



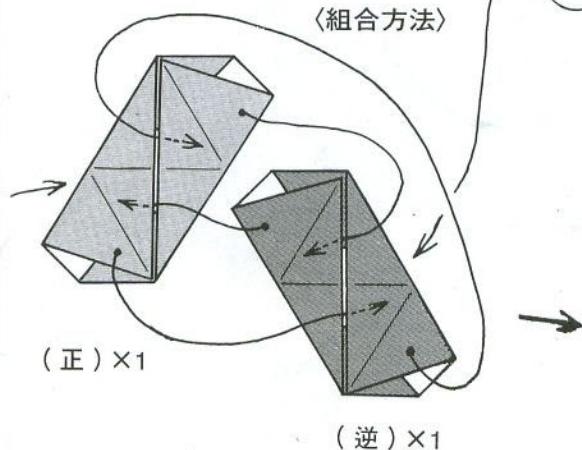
## ★ 逆折



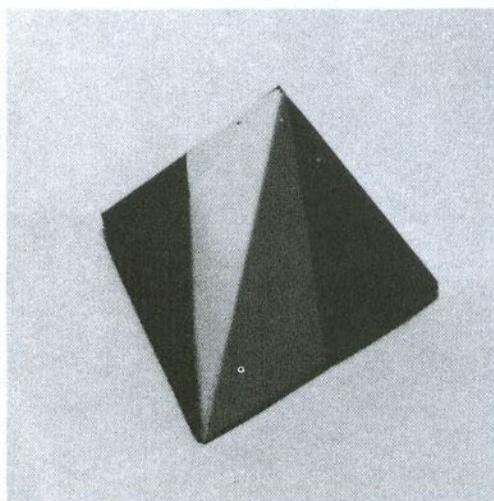
○處做法同左頁  
⑤夾進縫隙中固定

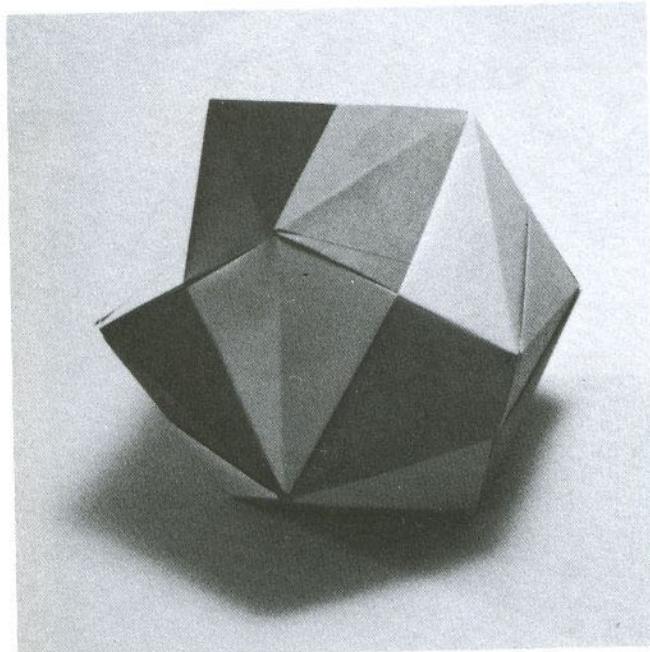
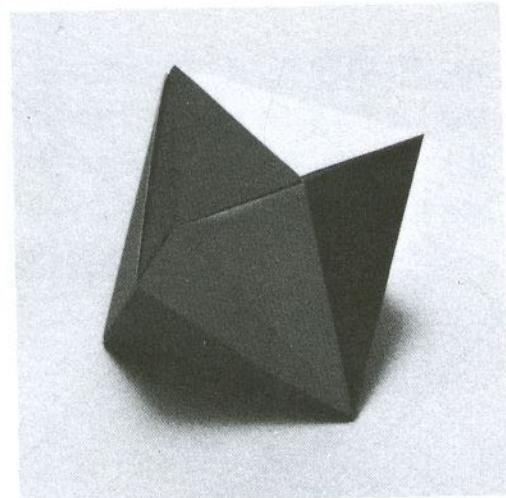
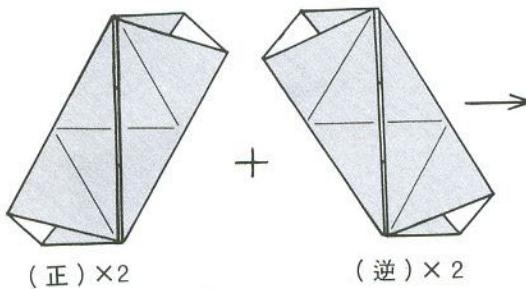
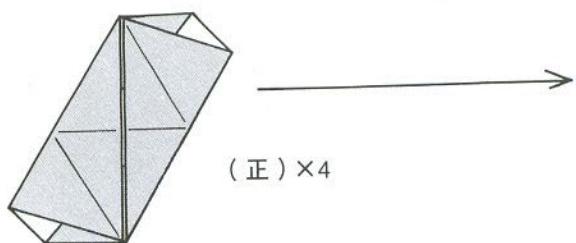


做法同上

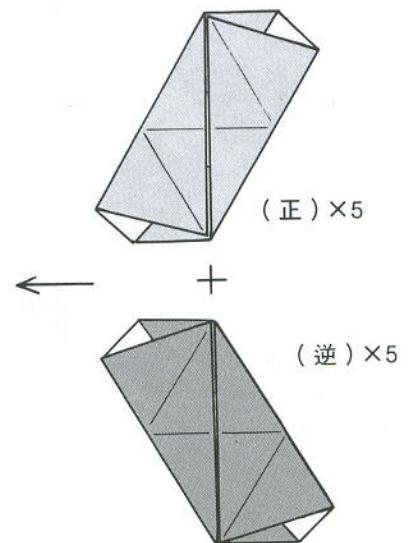


正 4 面體 ►





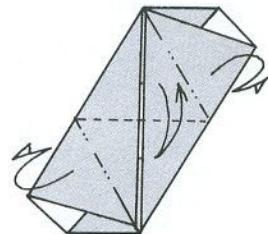
◀ 正 20 面體



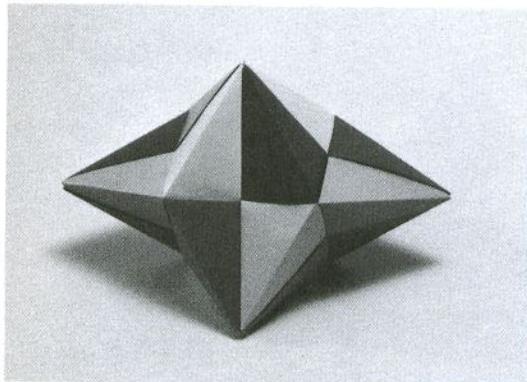
# 正三角形組合・星形組合

這次要做的是像糖球一般，有尖角突出的「星形組合」。如右圖折出折痕，用同一種紙型組合。

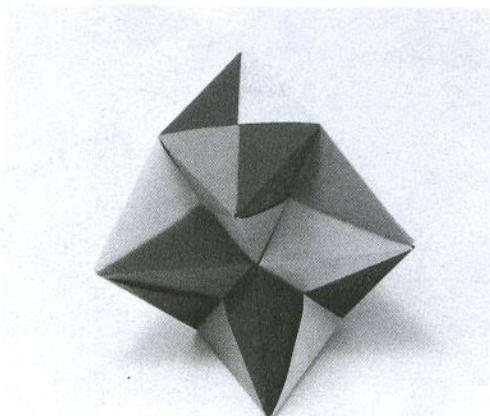
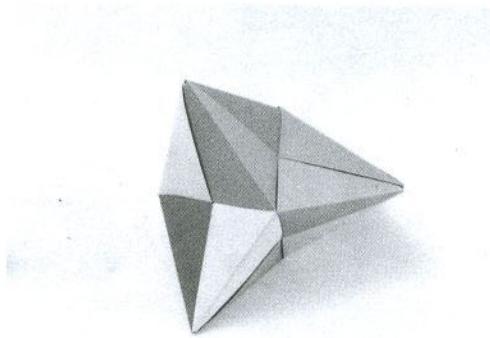
這一頁全是奇數的組合，下一頁開始的偶數組合可能比較容易了解，所以您最好從下一頁的幾個造型開始著手去做。



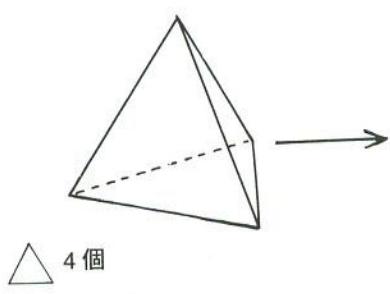
▼ 7張組合



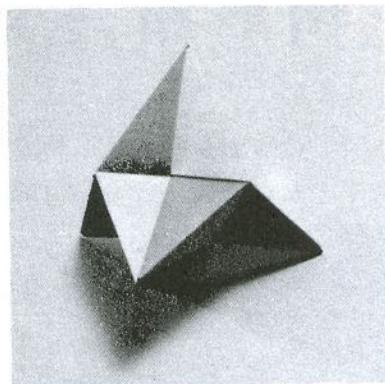
▲ 9張組合



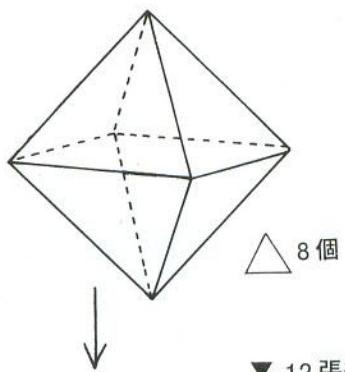
▲ 11張組合



△ 4 個

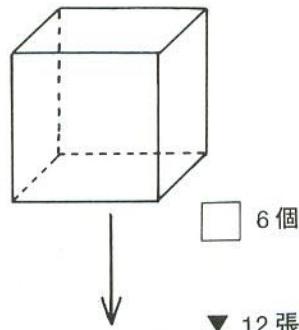


▲ 6 張組合



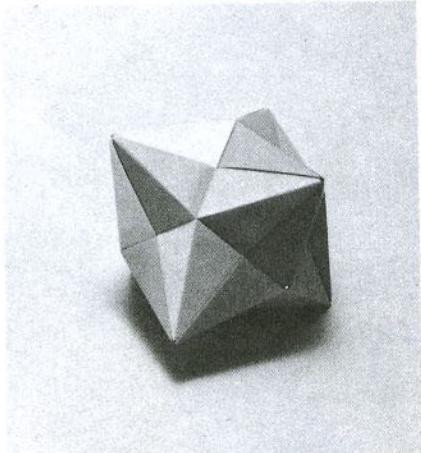
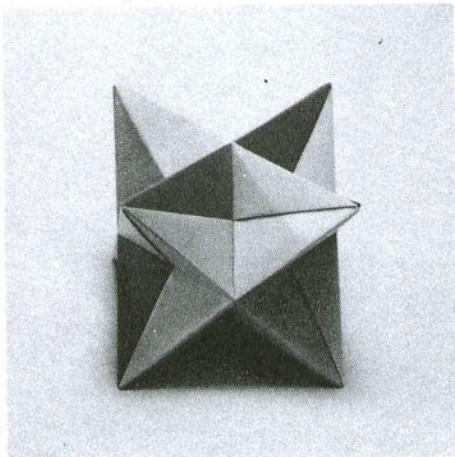
△ 8 個

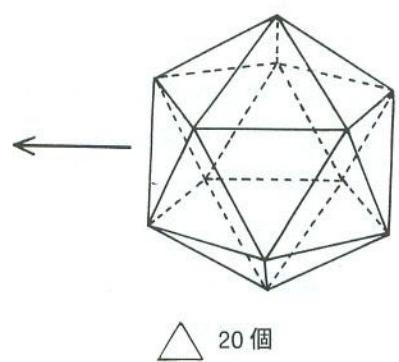
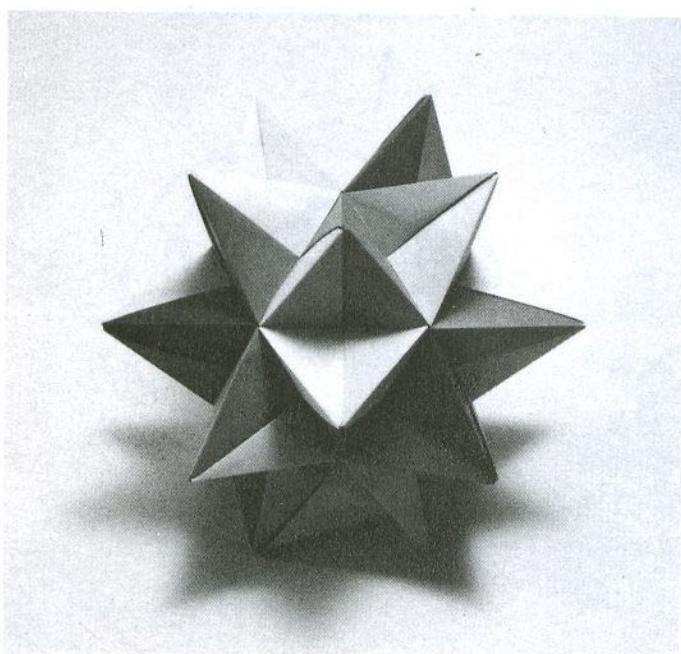
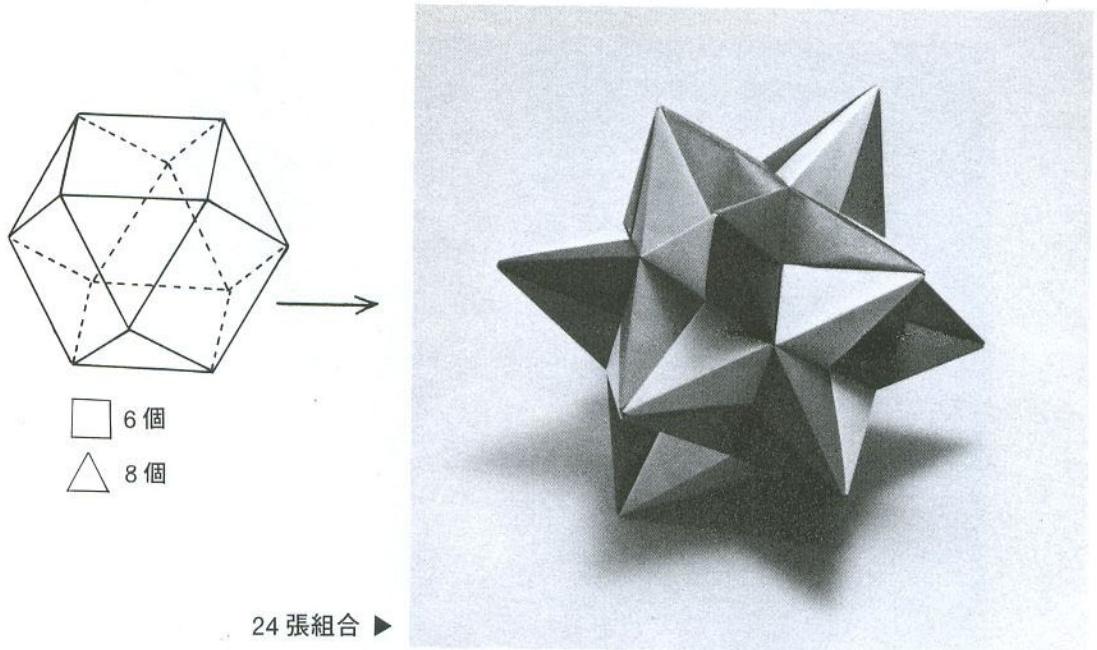
▼ 12 張組合

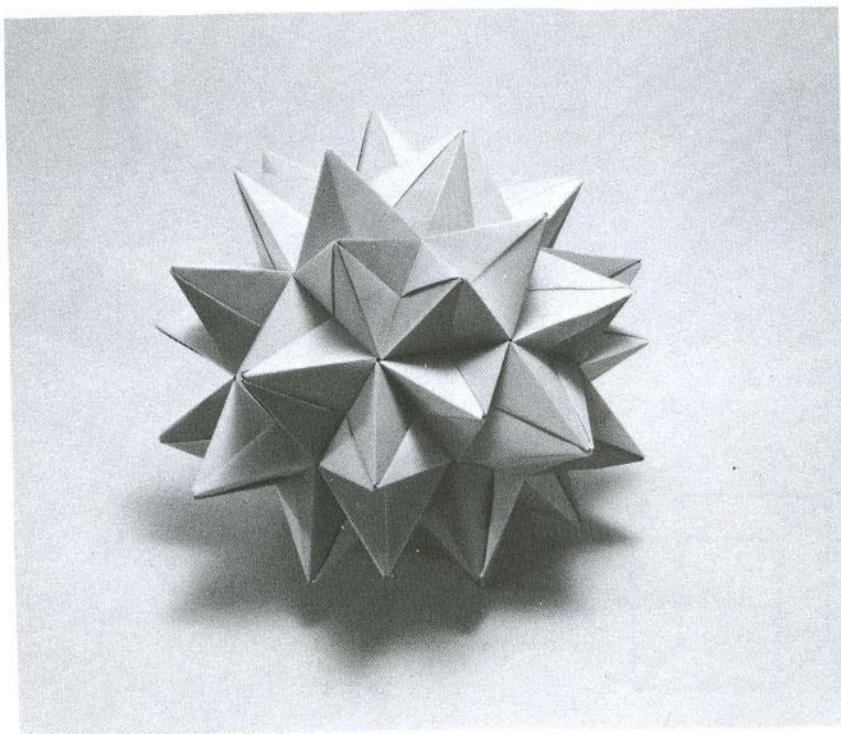


□ 6 個

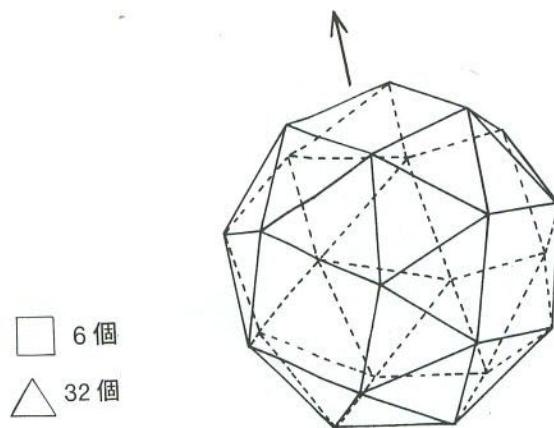
▼ 12 張組合





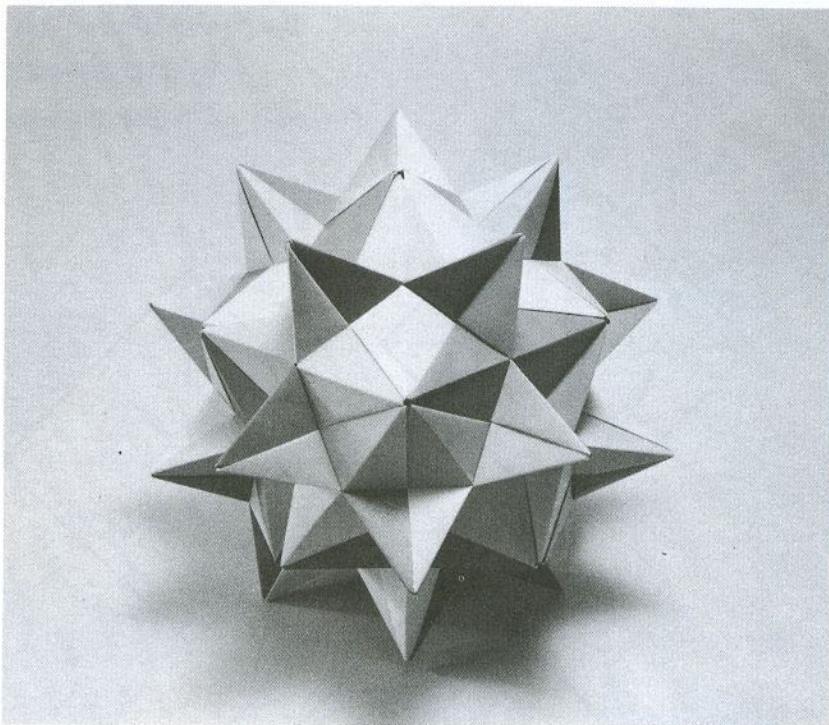


▲ 60 張組合

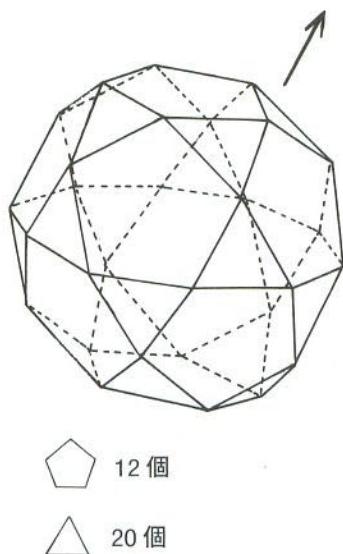


□ 6 個

△ 32 個



▲ 60 張組合



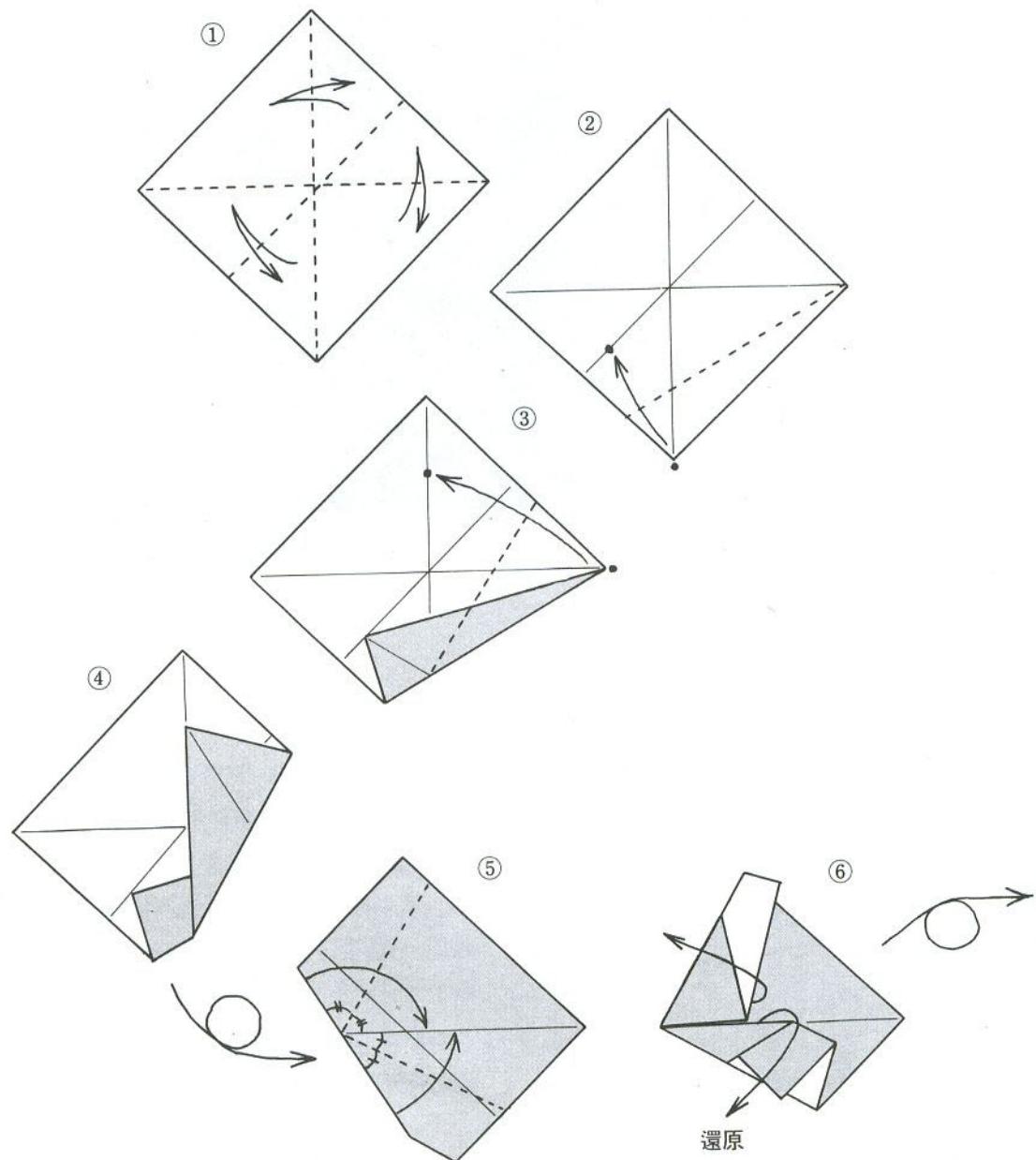
這二頁都是 60 張組合的造型。用 60 張組合，成果非常壯觀，當您完成時，一定會不由自主的發出讚嘆之聲。

這二種雖都是由 60 張所拼成，但是這一頁的五角形拼法，比起來就脆弱多了，一不小心，馬上就會解體。因此，如果要吊起來當裝飾品，一定要用漿糊把它黏牢。

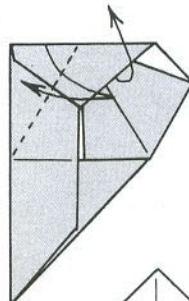
# 長崎風箏

這是將前面的正三角形的一邊，改為直角等邊三角形的造型。

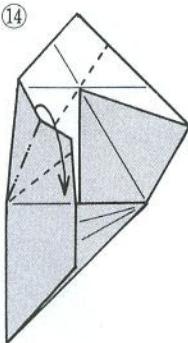
它是由二個不同形狀的三角形所組成的，因外形像長崎風箏而命名。



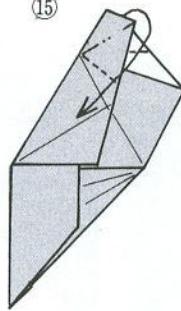
⑬



⑭

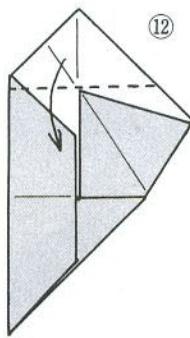


⑮

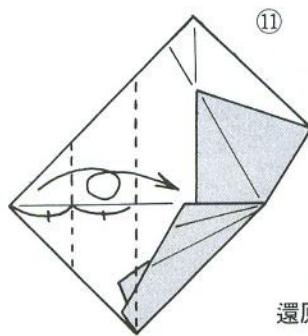


接下一页 ➡

⑯

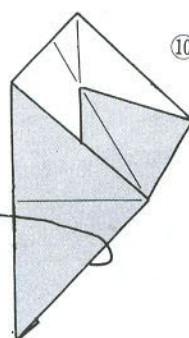


⑰

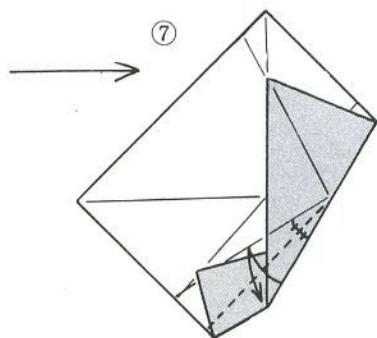


還原

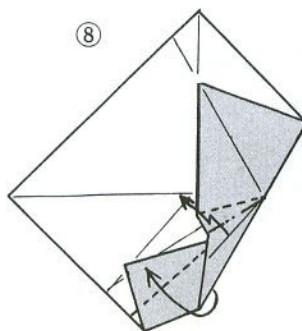
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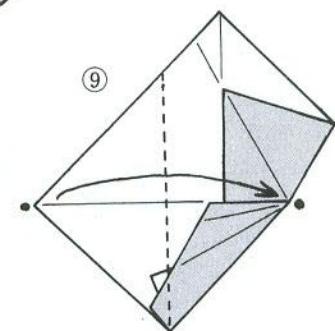
⑲



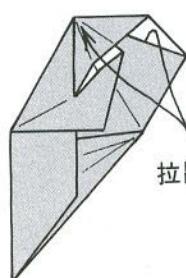
⑳



㉑

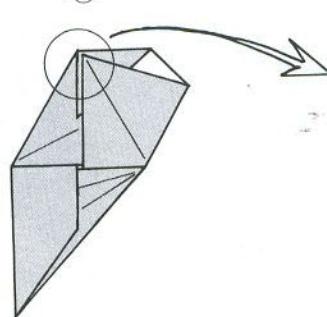


(16)



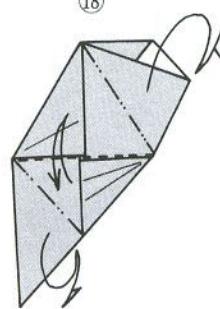
拉出來放到上面

(17)

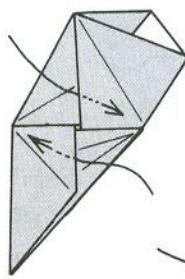


夾進內側的  
縫隙中固定

(18)

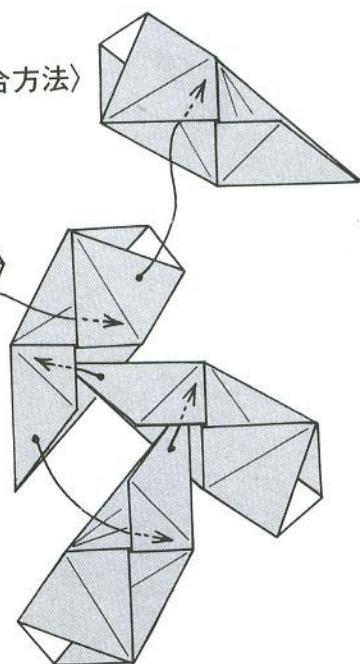


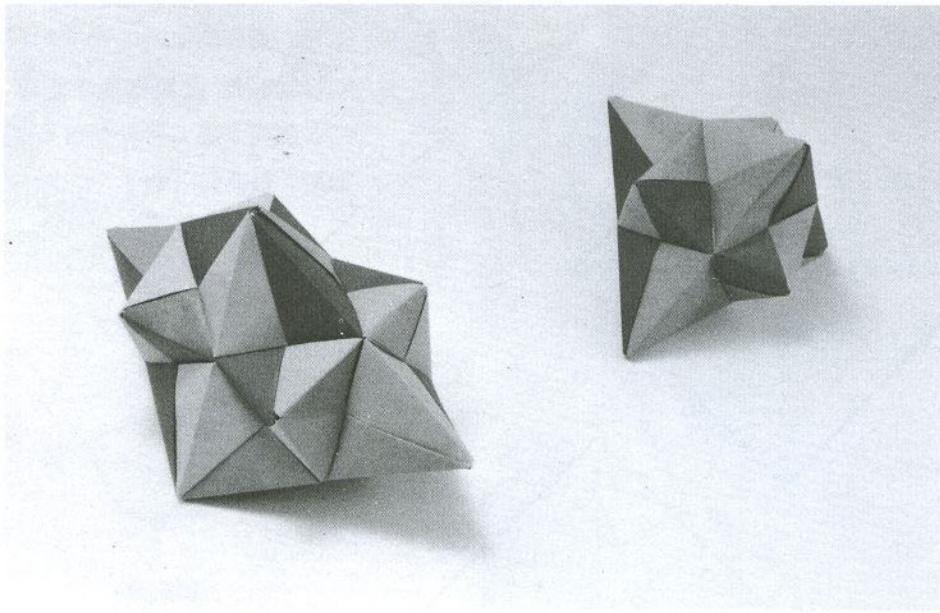
(19)



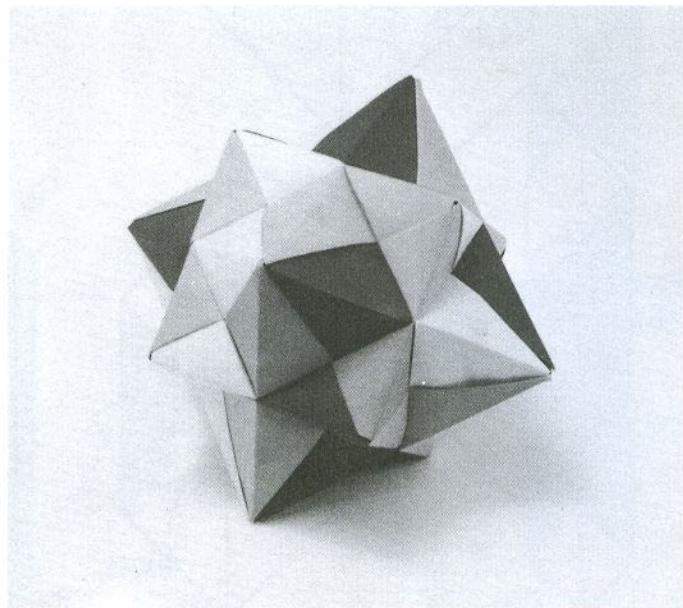
〈組合方法〉

用三張直角等邊三角形做  
出一個金字塔，再用 3~5  
張正三角形組合起來。





▲ 左：18 張組合，右：12 張組合

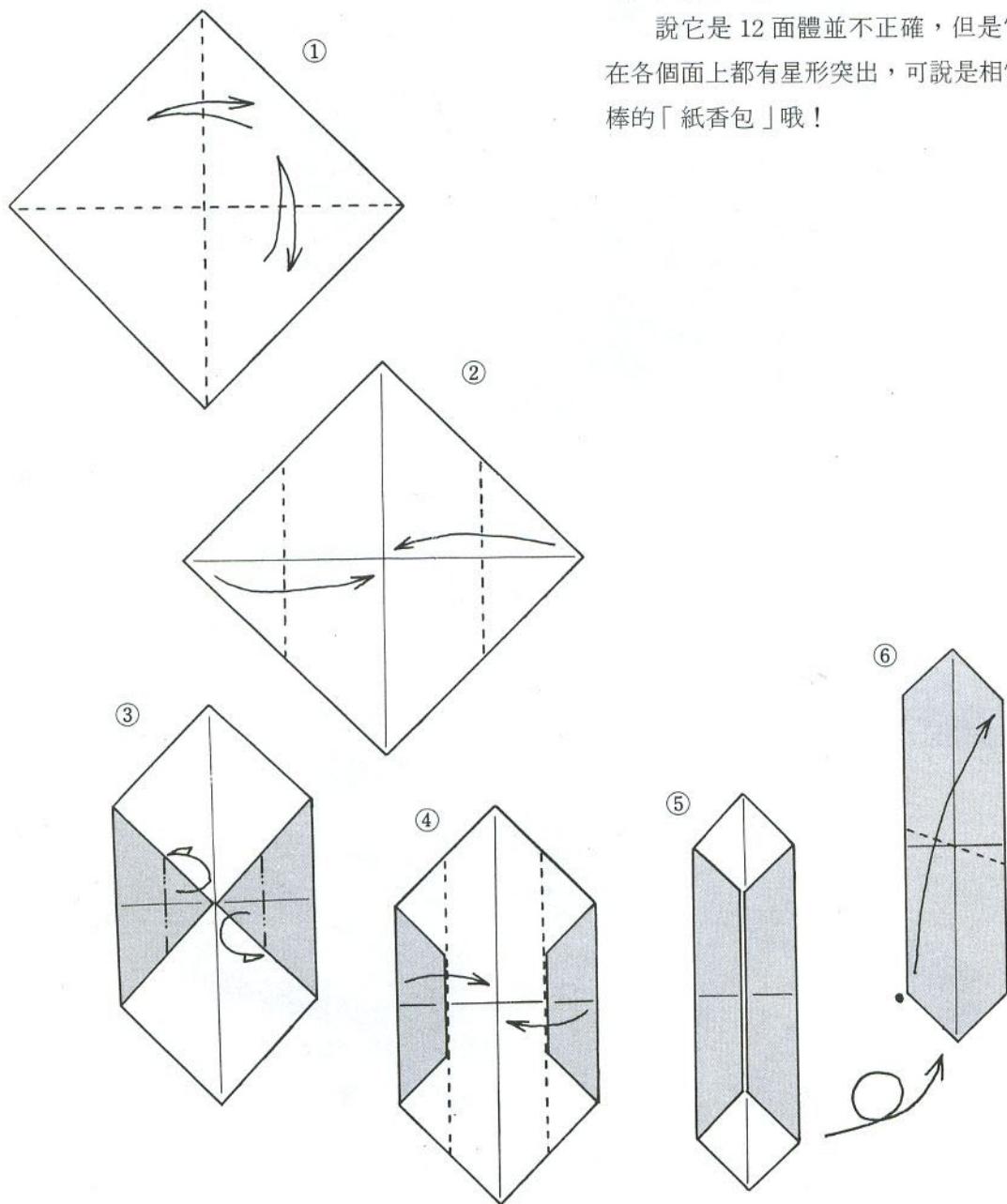


▲ 24 張組合

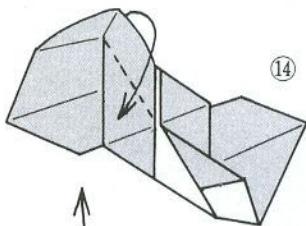
# 香包 12 面體

這也是應用以前發表過的作品，再加上一點技巧，使完成的作品更加牢固而苦心構思出來的。

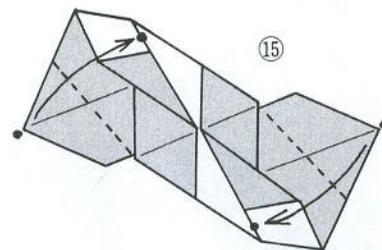
說它是 12 面體並不正確，但是它在各個面上都有星形突出，可說是相當棒的「紙香包」哦！



像要蓋住似地  
翻下來



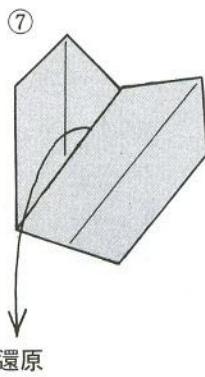
⑯



⑯

接下一頁 ➡

將這裡  
拉直立起來

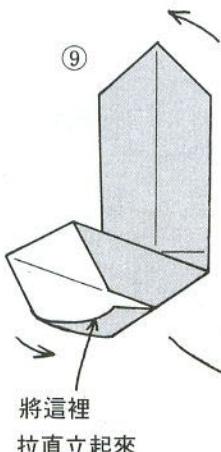


⑦

還原



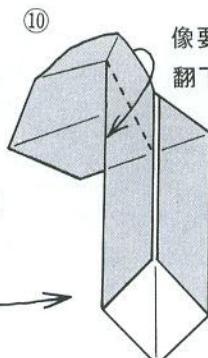
⑧



⑨

將這裡  
拉直立起來

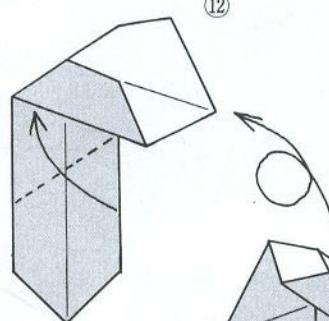
上下顛倒



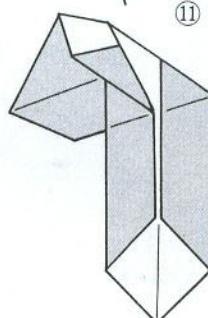
⑩

像要蓋住似地  
翻下來

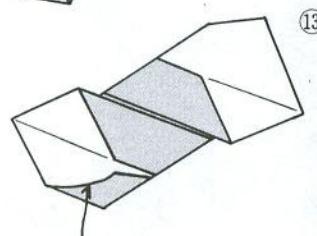
⑫



⑪

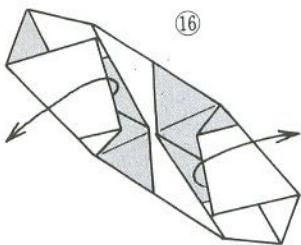


⑬

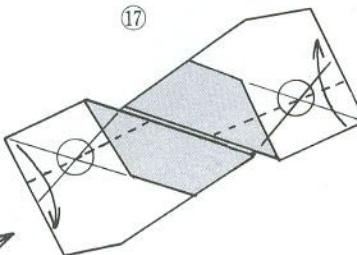


⑭

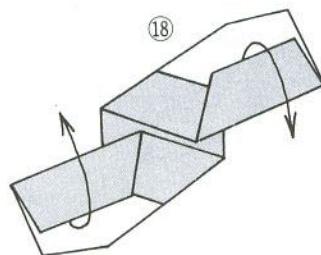
⑮



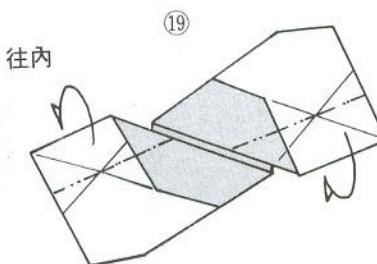
(16)



(17)



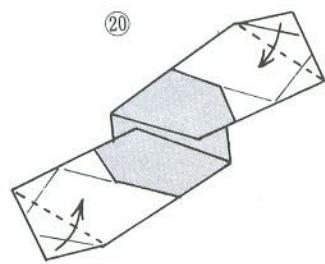
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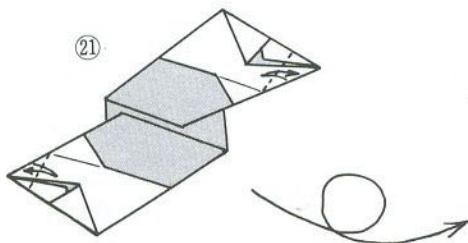
(19)

往內

照(18)所折的折痕，  
往內折

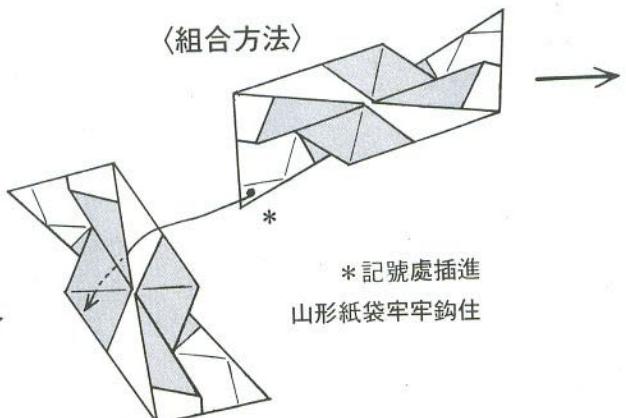


(20)

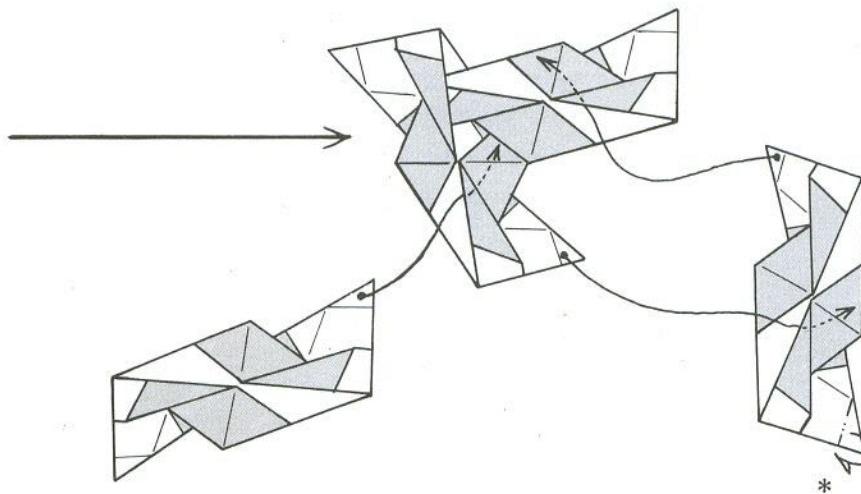
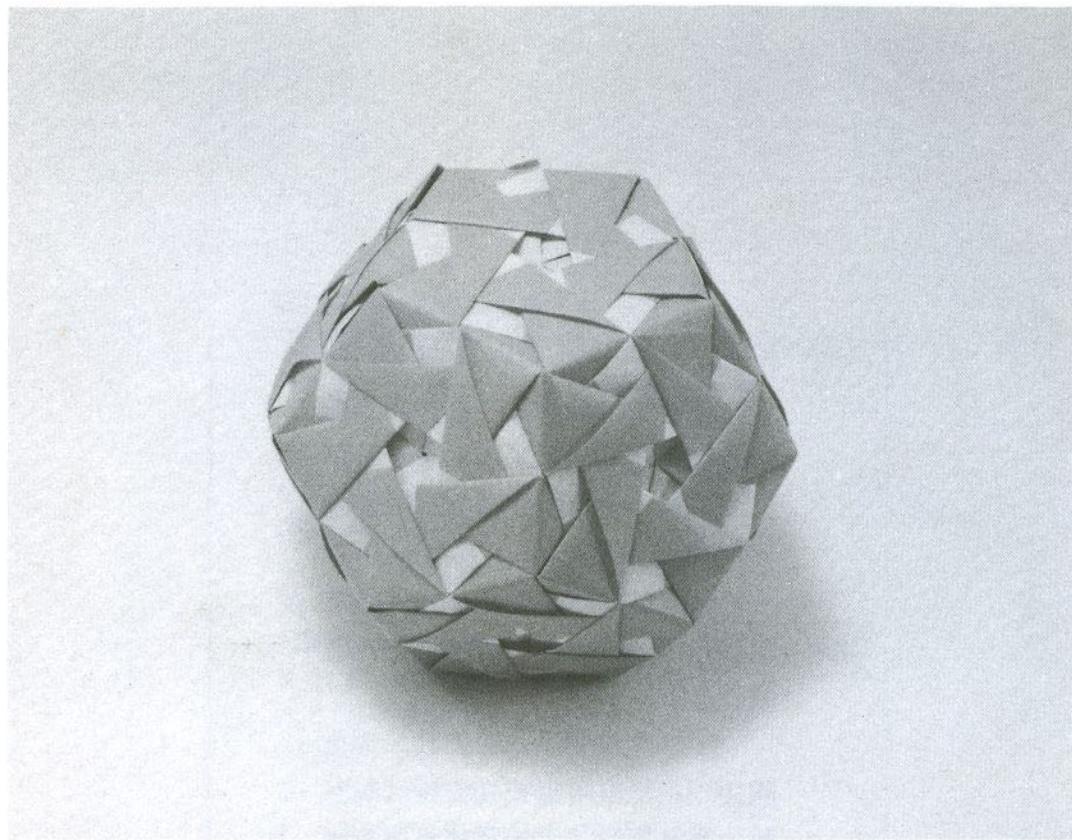


(21)

〈組合方法〉

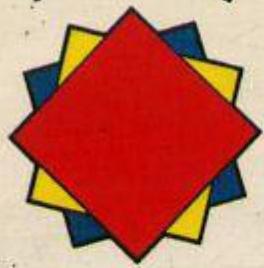


\* 記號處插進  
山形紙袋牢牢鉤住



最後一張如果不易組合，可將\*記號部分往內折，然後插入。

折紙世界



立體造型折紙

組合式折紙

